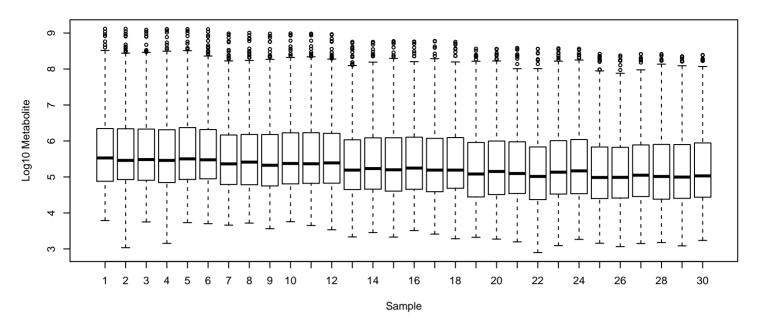
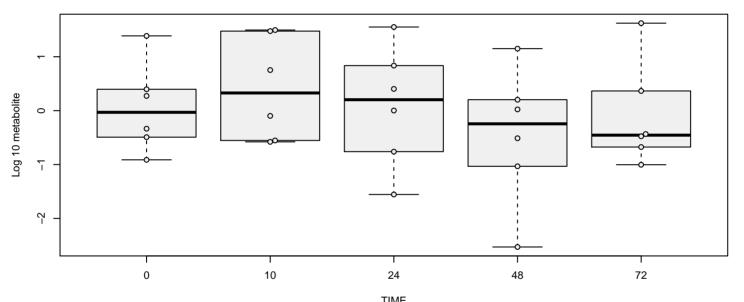
Cell extract after normalization on cell number

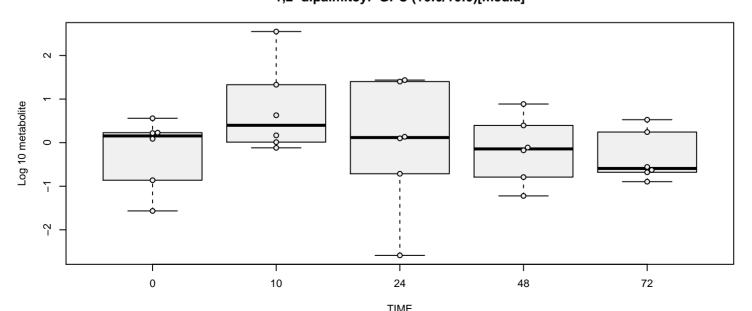


1,2-dioleoyl-GPC (18:1/18:1)*[media]



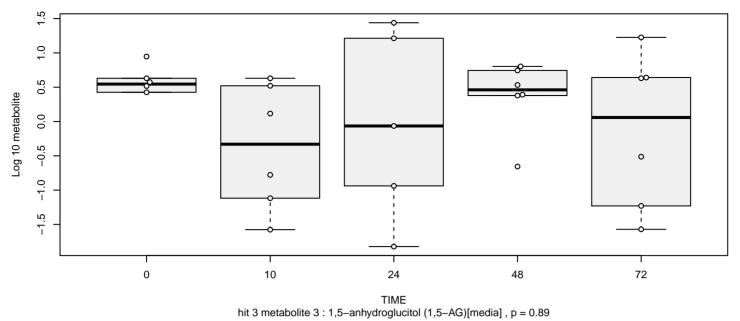
 $\label{eq:time} TIME \\ \mbox{hit 1 metabolite 1 : 1,2-dioleoyl-GPC (18:1/18:1)*[media] , p = 0.35}$

1,2-dipalmitoyl-GPC (16:0/16:0)[media]

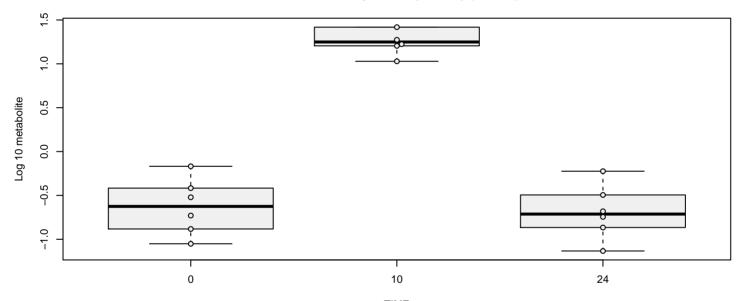


 $\label{eq:TIME} \mbox{TIME} $$ \mbox{hit 2 metabolite 2 : 1,2-dipalmitoyl-GPC (16:0/16:0)[media] , p = 0.3 $$ }$

1,5-anhydroglucitol (1,5-AG)[media]

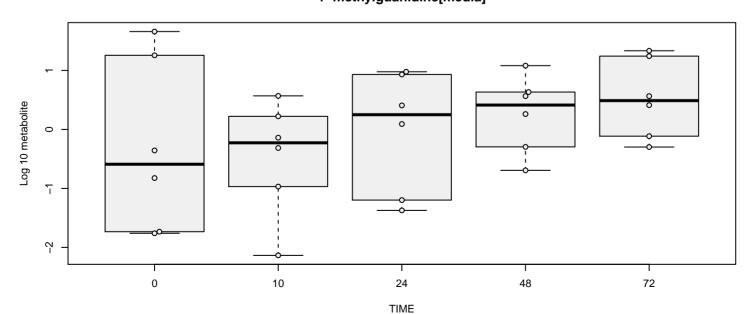


1-arachidonoyl-GPC (20:4n6)*[media]



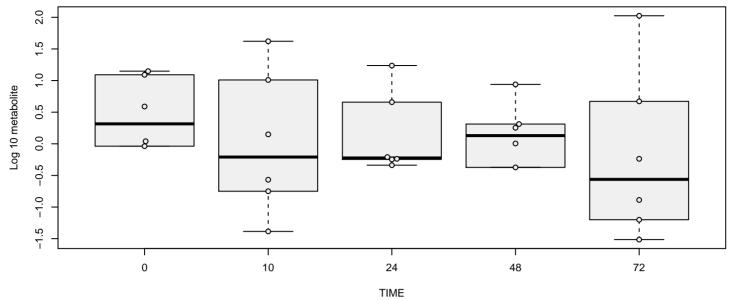
 $\label{eq:TIME} \mbox{TIME} $$ \mbox{hit 4 metabolite 4 : 1-arachidonoyl-GPC (20:4n6)*[media] , p = 0.64 $$ }$

1-methylguanidine[media]



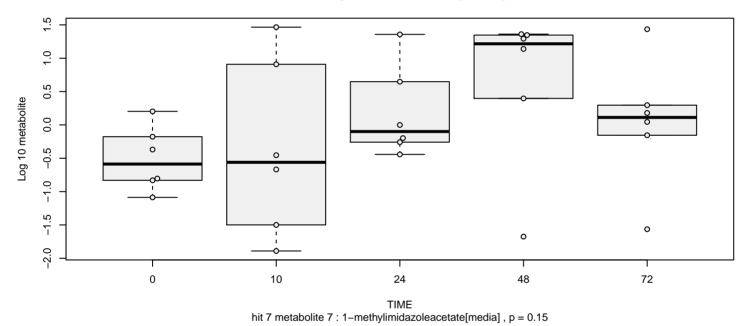
hit 5 metabolite 5 : 1-methylguanidine[media] , p = 0.059

1-methylhistidine[media]

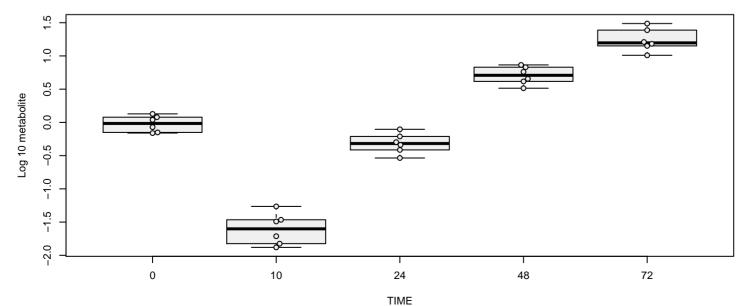


hit 6 metabolite 6 : 1-methylhistidine[media] , p = 0.53

1-methylimidazoleacetate[media]

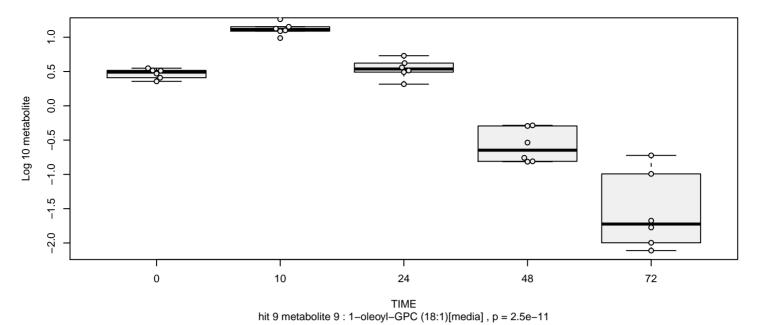


1-methylnicotinamide[media]

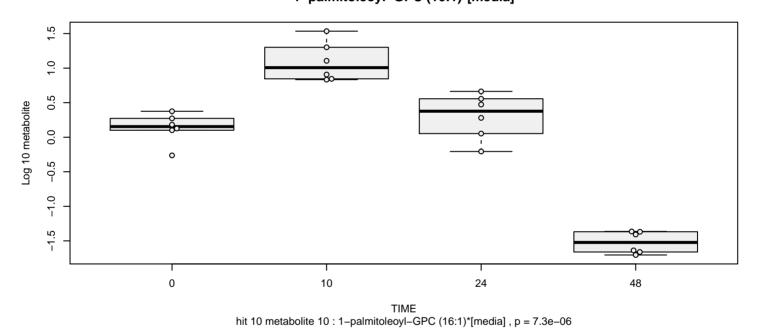


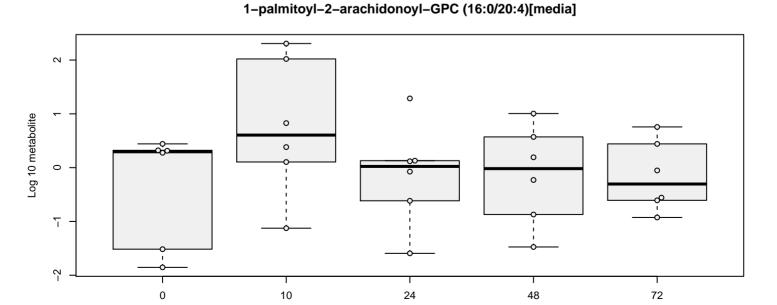
hit 8 metabolite 8 : 1-methylnicotinamide[media] , p = 5.4e-07

1-oleoyl-GPC (18:1)[media]



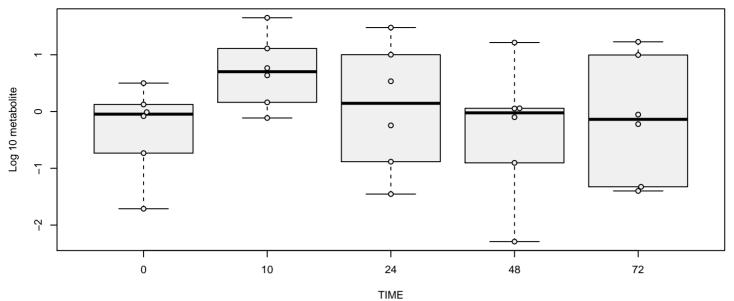
1-palmitoleoyl-GPC (16:1)*[media]





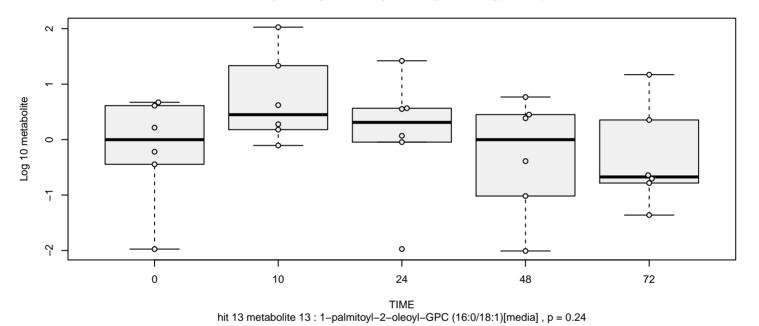
 $\label{eq:TIME} TIME $$ hit 11 metabolite 11 : 1-palmitoyl-2-arachidonoyl-GPC (16:0/20:4)[media] \ , \ p=0.59 $$$

1-palmitoyl-2-linoleoyl-GPC (16:0/18:2)[media]

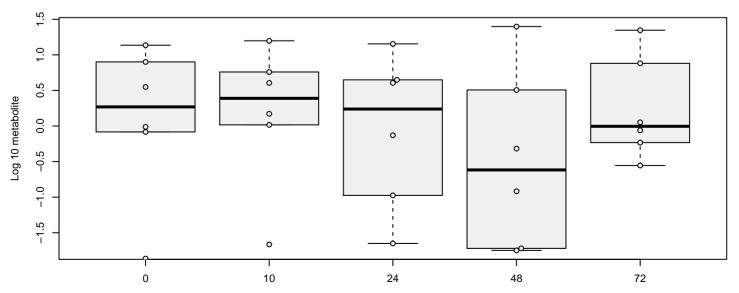


hit 12 metabolite 12 : 1-palmitoyl-2-linoleoyl-GPC (16:0/18:2)[media], p = 0.51

1-palmitoyl-2-oleoyl-GPC (16:0/18:1)[media]

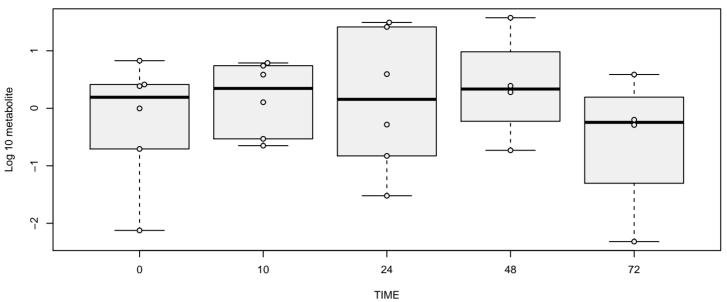


1-palmitoyl-2-palmitoleoyl-GPC (16:0/16:1)*[media]



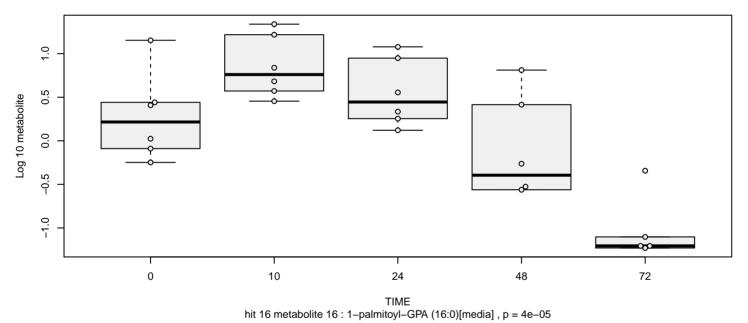
TIME hit 14 metabolite 14 : 1-palmitoyl-2-palmitoleoyl-GPC (16:0/16:1)*[media] , p = 0.85

1-palmitoyl-2-stearoyl-GPC (16:0/18:0)[media]

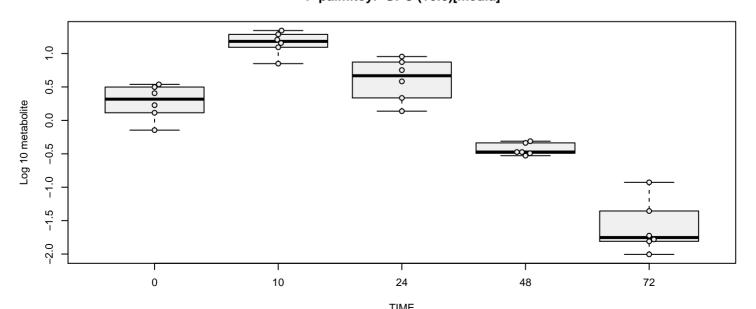


hit 15 metabolite 15 : 1-palmitoyl-2-stearoyl-GPC (16:0/18:0)[media], p = 0.67

1-palmitoyl-GPA (16:0)[media]

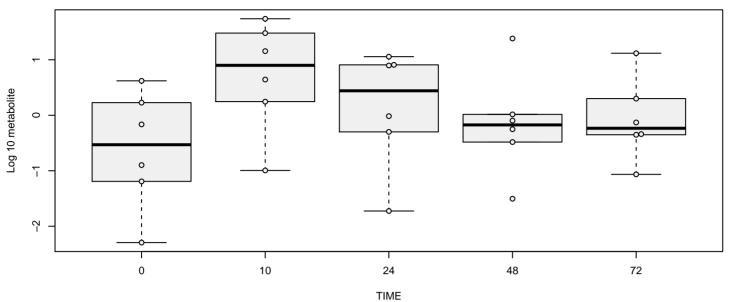


1-palmitoyl-GPC (16:0)[media]



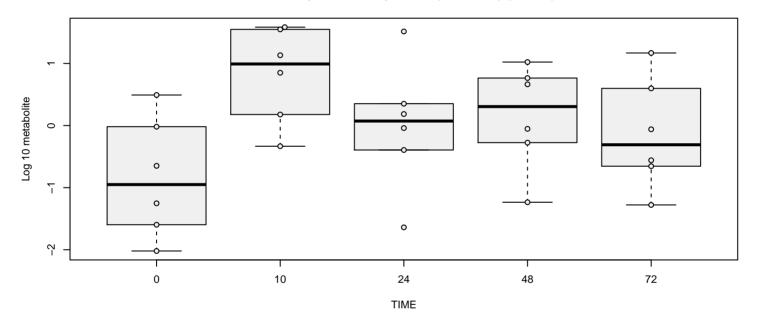
 $\label{eq:TIME} \mbox{hit 17 metabolite 17 : 1-palmitoyl-GPC (16:0)[media] , p = 1.7e-09}$

1-stearoyl-2-arachidonoyl-GPC (18:0/20:4)[media]



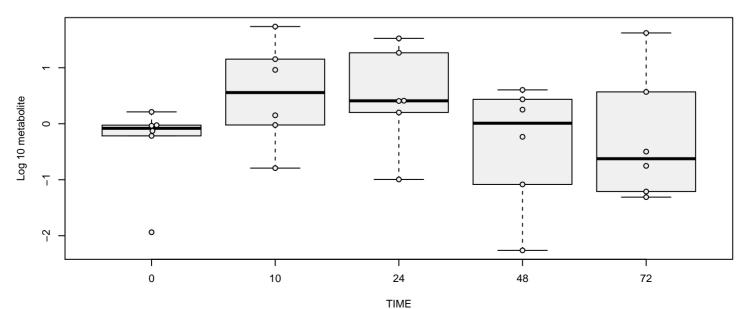
hit 18 metabolite 18 : 1-stearoyl-2-arachidonoyl-GPC (18:0/20:4)[media] , p = 0.91

1-stearoyl-2-linoleoyl-GPC (18:0/18:2)*[media]



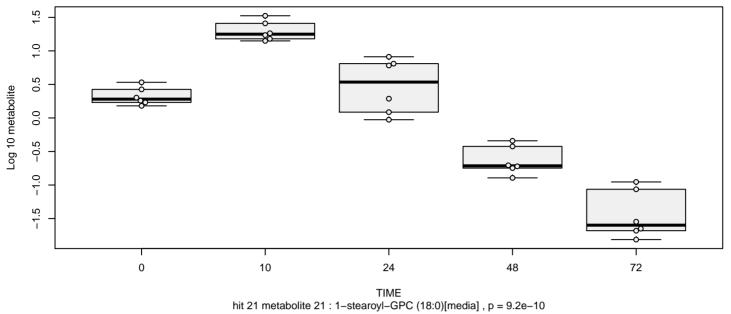
hit 19 metabolite 19 : 1-stearoyl-2-linoleoyl-GPC (18:0/18:2)*[media] , p = 0.81

1-stearoyl-2-oleoyl-GPC (18:0/18:1)[media]

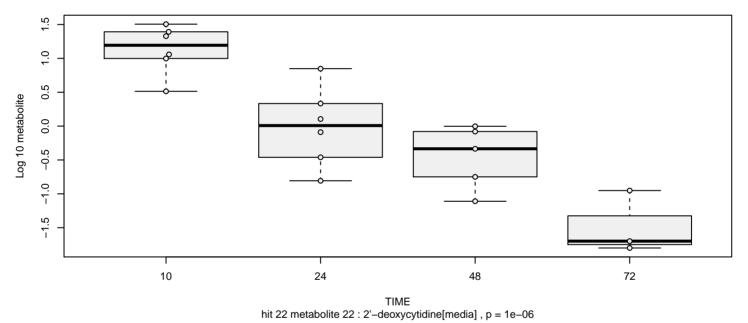


hit 20 metabolite 20 : 1-stearoyl-2-oleoyl-GPC (18:0/18:1)[media] , p = 0.4

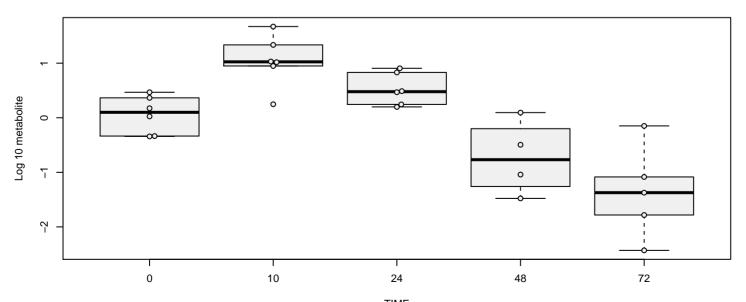
1-stearoyl-GPC (18:0)[media]



2'-deoxycytidine[media]

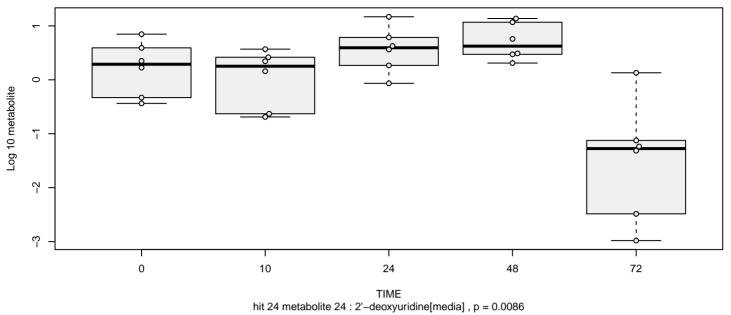


2'-deoxyinosine[media]

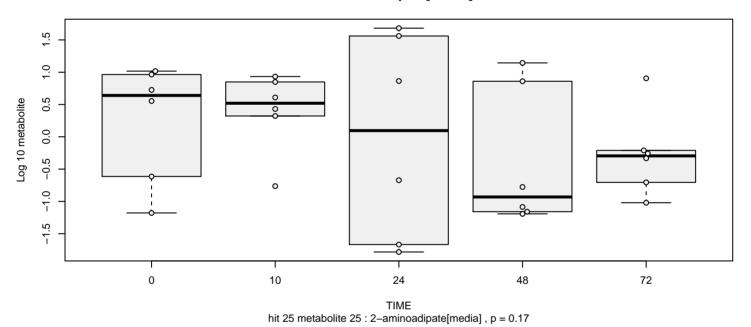


 $\label{eq:TIME} \mbox{hit 23 metabolite 23 : 2'-deoxyinosine[media] , p = 2.2e-05}$

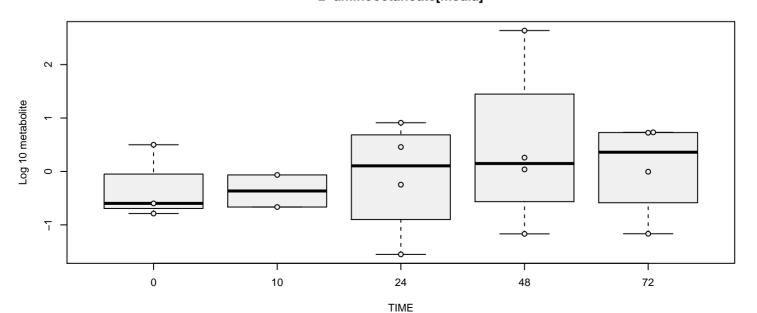
2'-deoxyuridine[media]



2-aminoadipate[media]

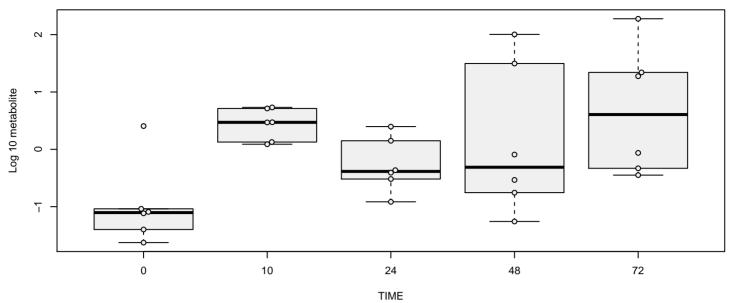


2-aminooctanoate[media]



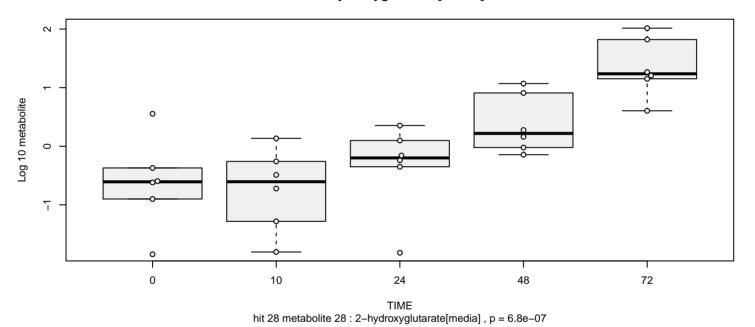
hit 26 metabolite 26 : 2-aminooctanoate[media] , p = 0.43

2-hydroxybutyrate/2-hydroxyisobutyrate[media]

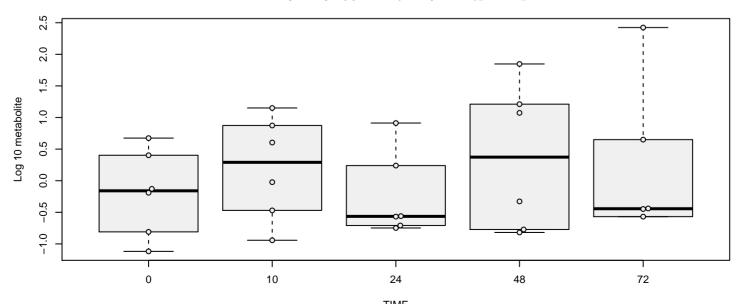


hit 27 metabolite 27 : 2-hydroxybutyrate/2-hydroxyisobutyrate[media], p = 0.023

2-hydroxyglutarate[media]

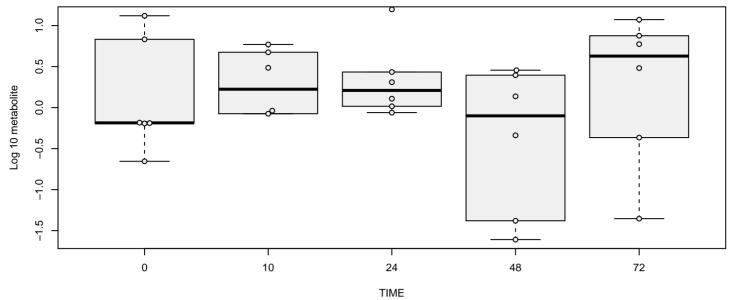


2-hydroxyhippurate (salicylurate)[media]



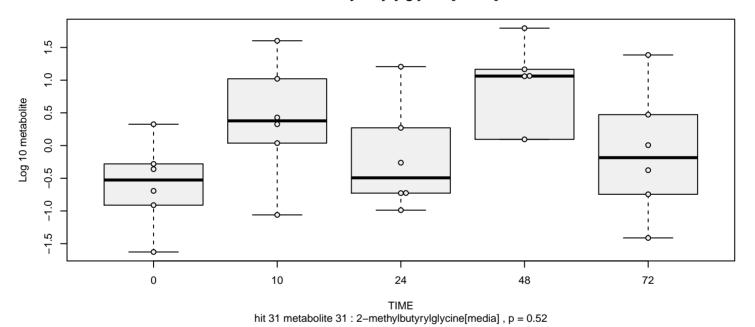
 $\label{total TIME} \mbox{TIME} $$ \mbox{hit 29 metabolite 29 : 2-hydroxyhippurate (salicylurate)[media] , p = 0.86 $$ $$$

2-methylbutyrylcarnitine (C5)[media]

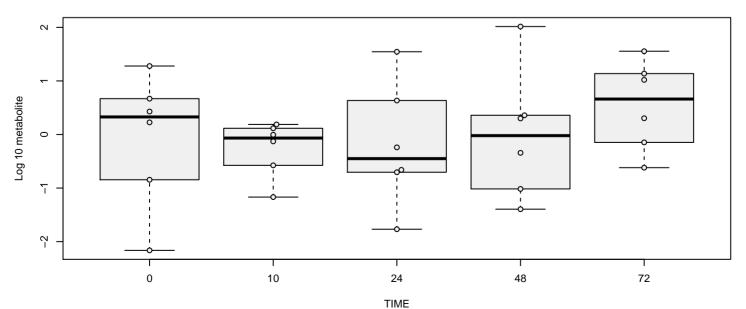


hit 30 metabolite 30 : 2-methylbutyrylcarnitine (C5)[media] , p = 0.87

2-methylbutyrylglycine[media]

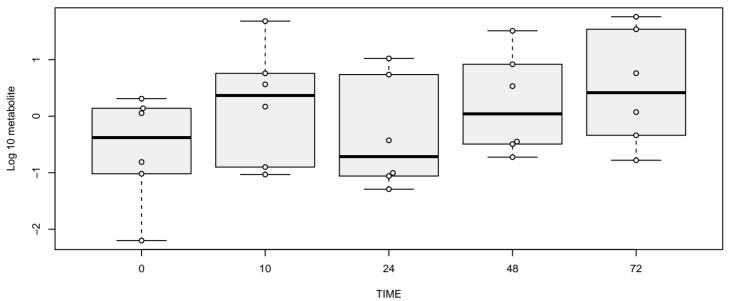


2-methylcitrate/homocitrate[media]



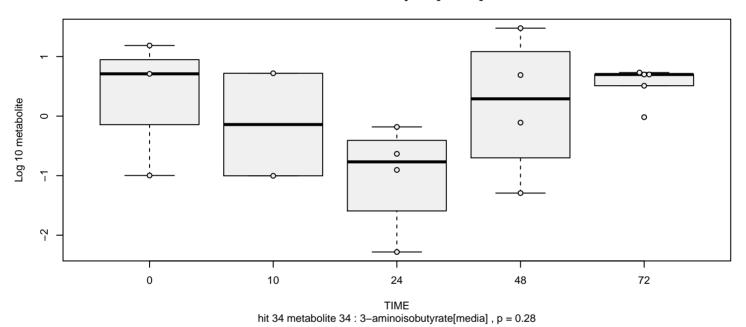
hit 32 metabolite 32 : 2-methylcitrate/homocitrate[media] , p = 0.2

3-(4-hydroxyphenyl)lactate[media]

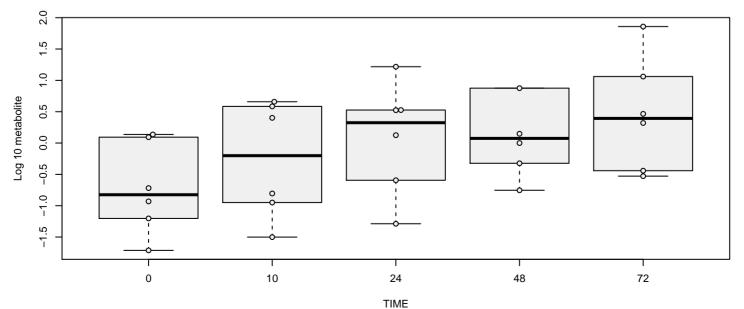


hit 33 metabolite 33 : 3-(4-hydroxyphenyl)lactate[media], p = 0.09

3-aminoisobutyrate[media]

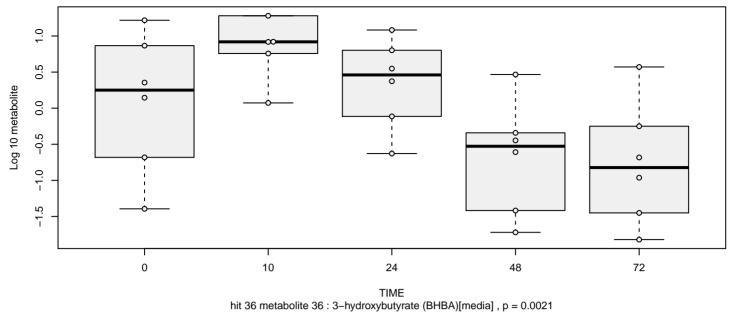


3-hydroxy-3-methylglutarate[media]

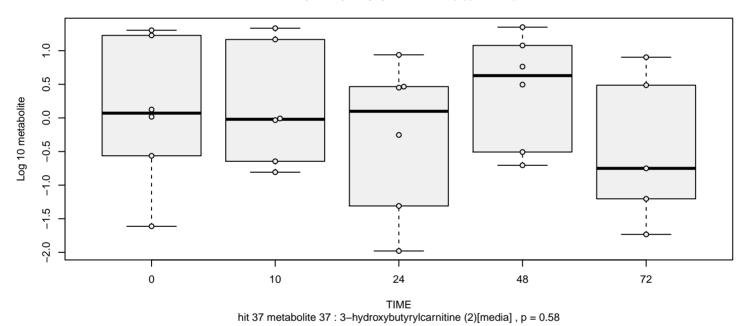


hit 35 metabolite 35 : 3-hydroxy-3-methylglutarate[media] , p = 0.021

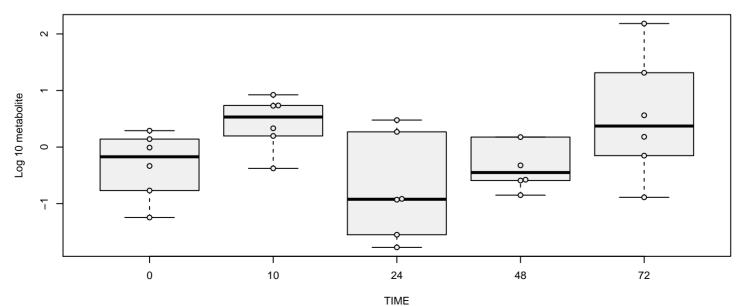
3-hydroxybutyrate (BHBA)[media]



3-hydroxybutyrylcarnitine (2)[media]

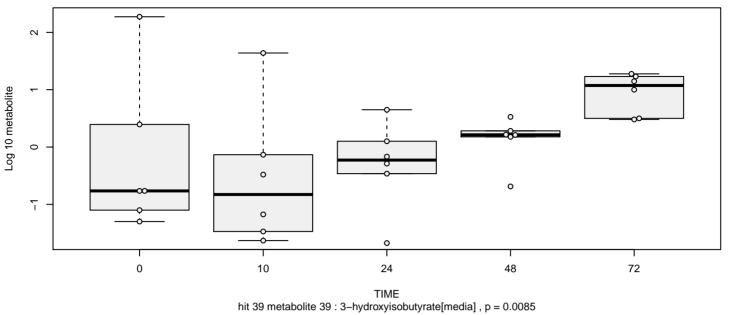


3-hydroxyhippurate[media]

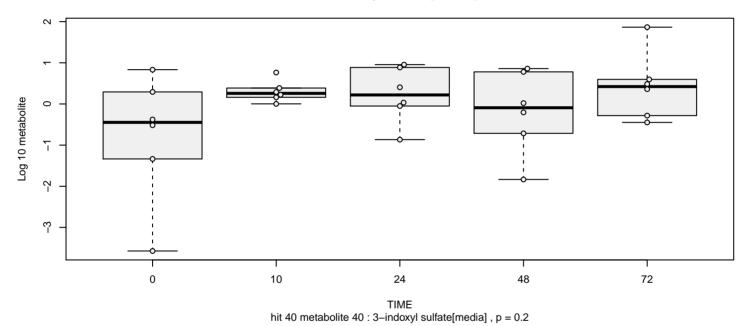


hit 38 metabolite 38 : 3-hydroxyhippurate[media] , p = 0.22

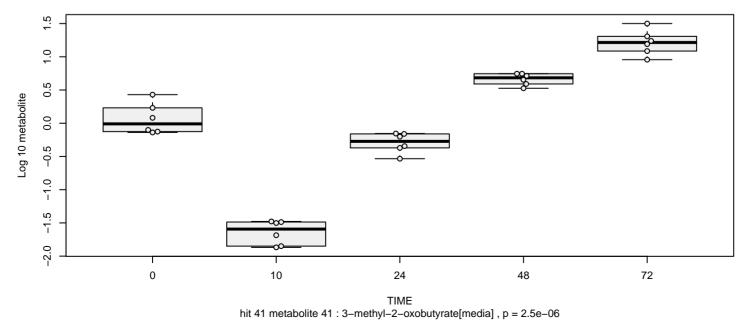
3-hydroxyisobutyrate[media]



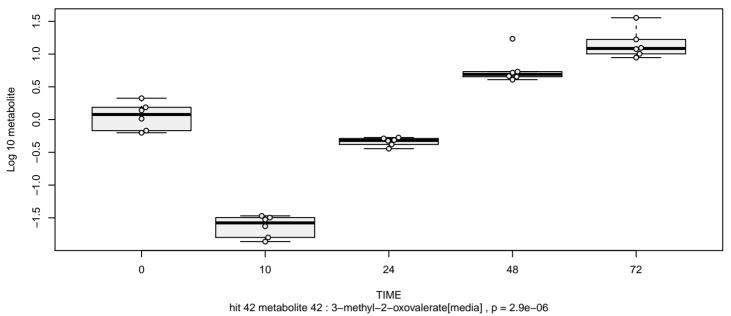
3-indoxyl sulfate[media]



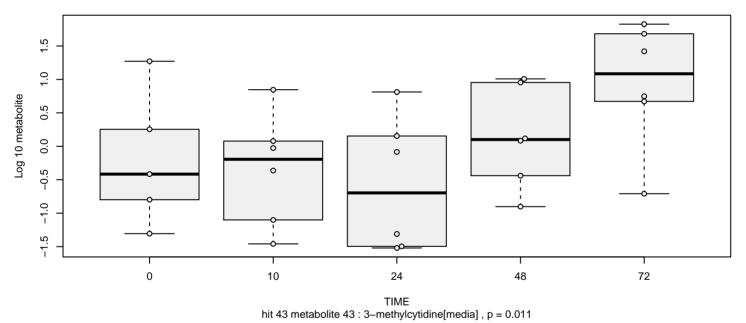
3-methyl-2-oxobutyrate[media]



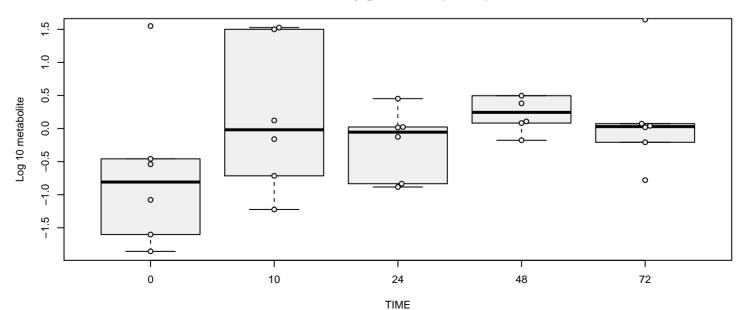
3-methyl-2-oxovalerate[media]



3-methylcytidine[media]

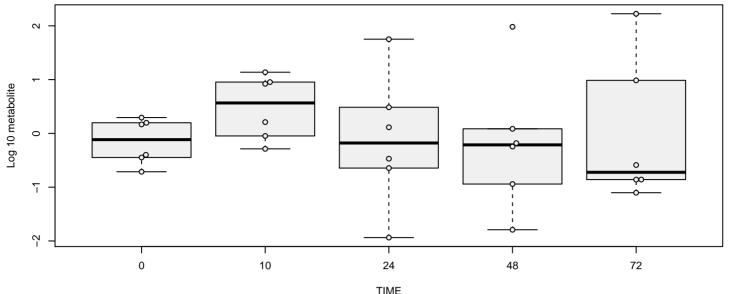


3-methylglutaconate[media]



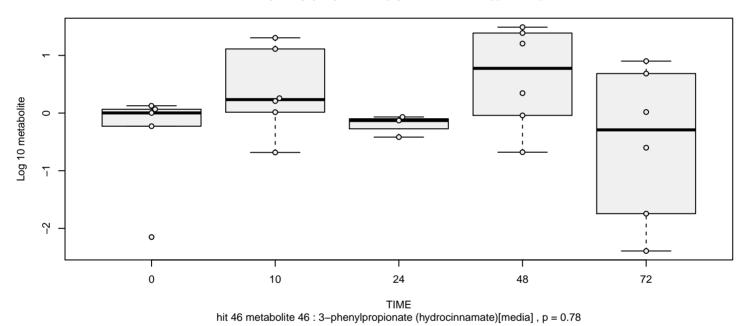
hit 44 metabolite 44 : 3-methylglutaconate[media] , p = 0.16

3-methylhistidine[media]

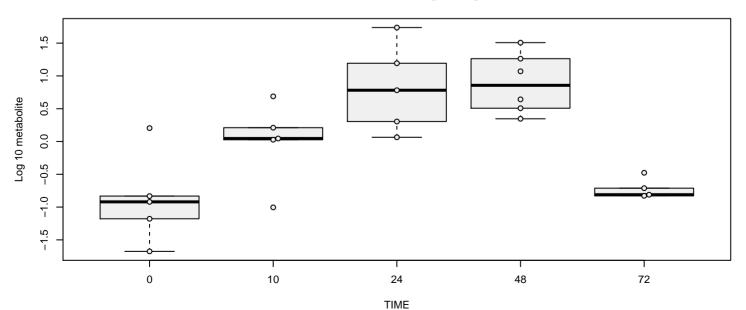


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 45 metabolite 45 : 3-methylhistidine[media] , p = 0.71} \end{split}$$

3-phenylpropionate (hydrocinnamate)[media]

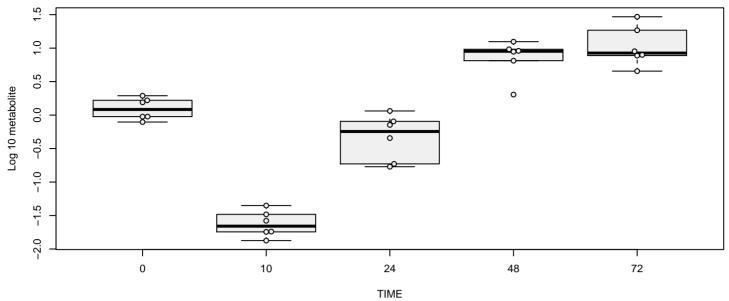


3-sulfo-L-alanine[media]



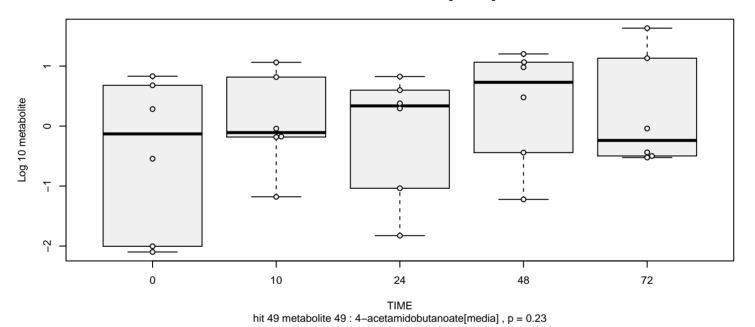
hit 47 metabolite 47 : 3-sulfo-L-alanine[media] , p = 0.97

3-ureidopropionate[media]

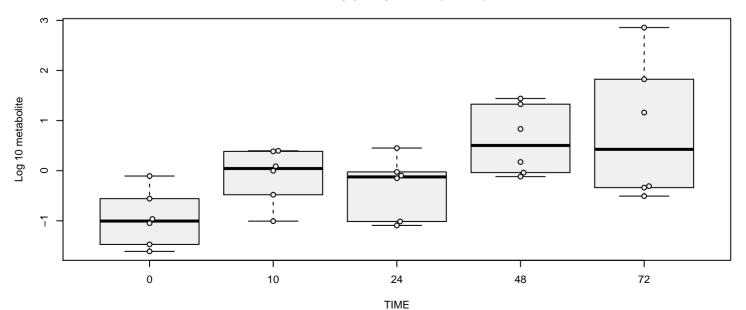


hit 48 metabolite 48 : 3-ureidopropionate[media] , p = 1.6e-05

4-acetamidobutanoate[media]

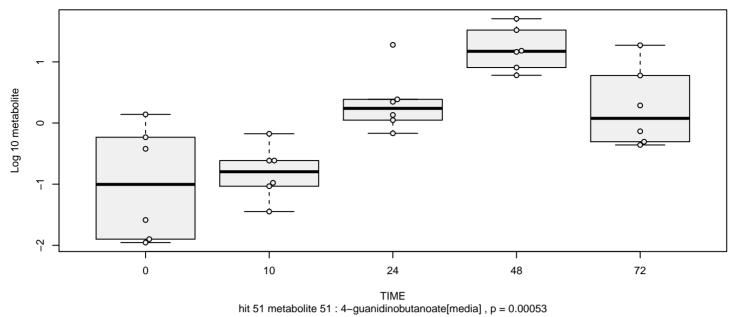


4-ethylphenylsulfate[media]

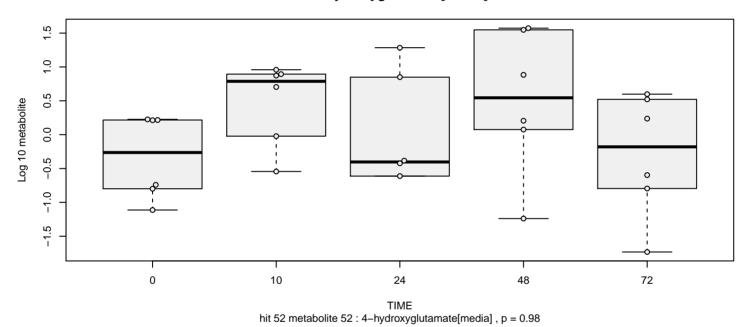


hit 50 metabolite 50 : 4-ethylphenylsulfate[media] , p = 0.00053

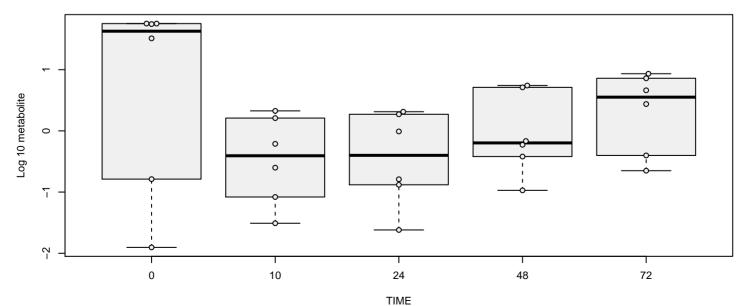
4-guanidinobutanoate[media]



4-hydroxyglutamate[media]

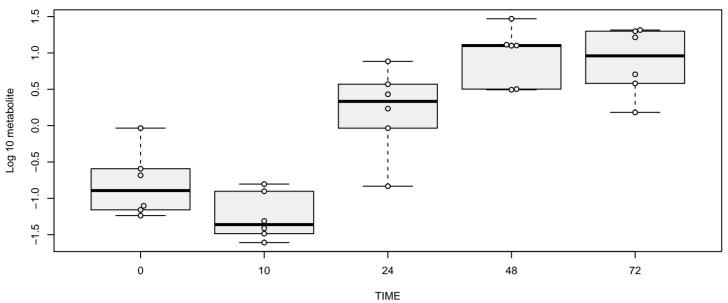


4-hydroxyphenylpyruvate[media]



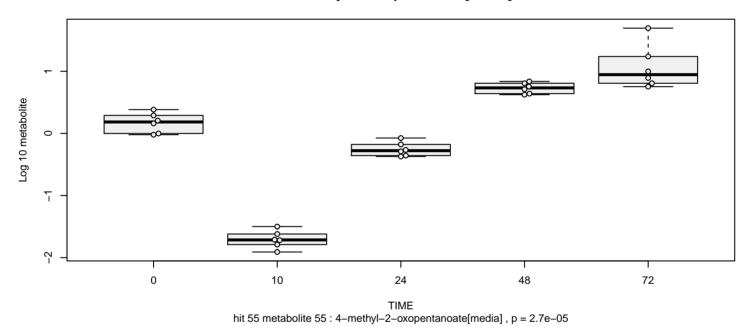
hit 53 metabolite 53 : 4-hydroxyphenylpyruvate[media] , p = 0.88

4-imidazoleacetate[media]

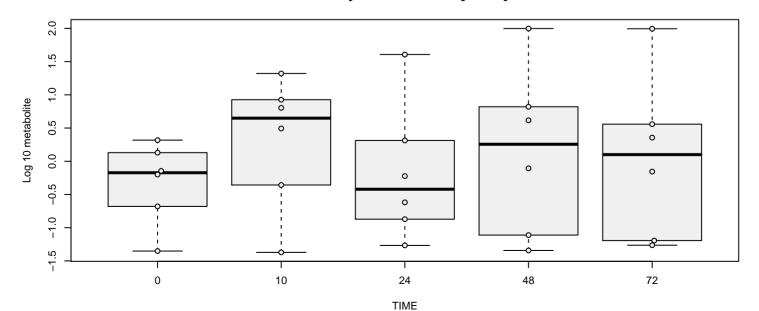


hit 54 metabolite 54 : 4-imidazoleacetate[media] , p = 1.5e-07

4-methyl-2-oxopentanoate[media]

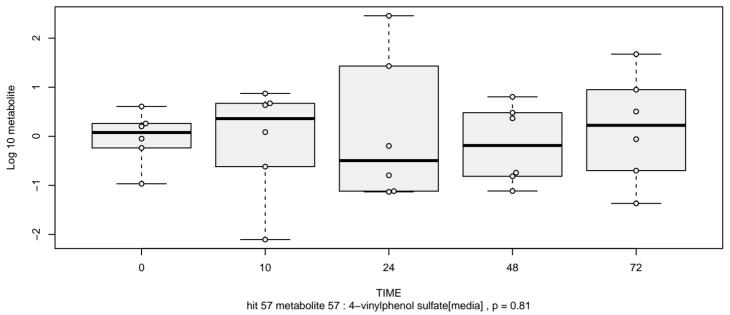


4-methylcatechol sulfate[media]

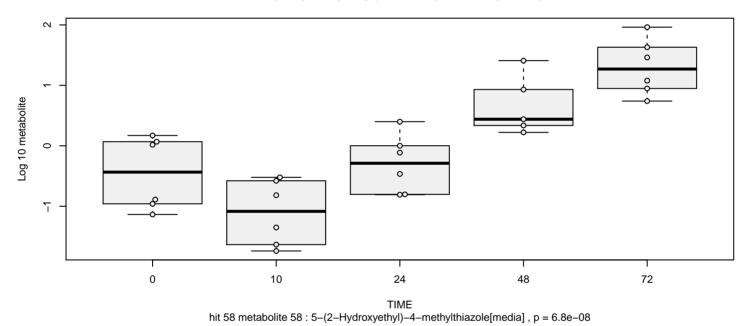


hit 56 metabolite 56 : 4-methylcatechol sulfate[media] , p = 0.7

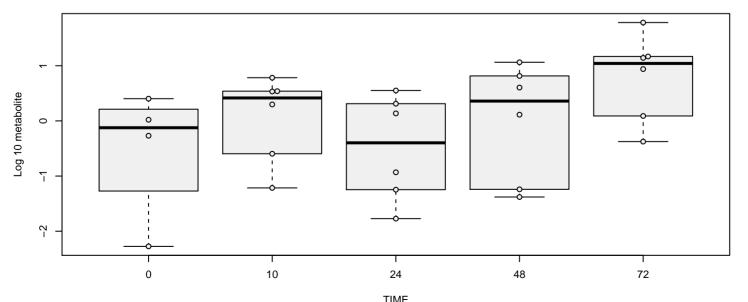
4-vinylphenol sulfate[media]



5-(2-Hydroxyethyl)-4-methylthiazole[media]

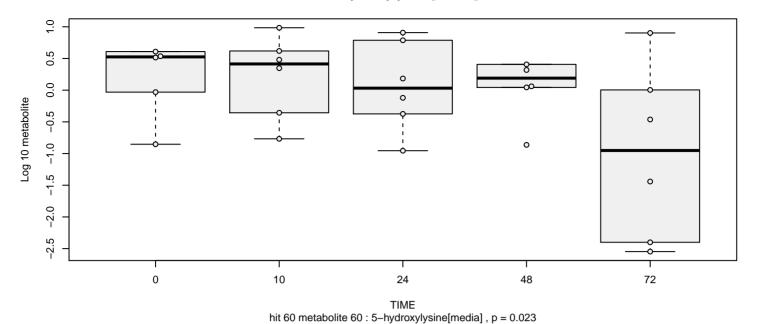


5-hydroxyindoleacetate[media]

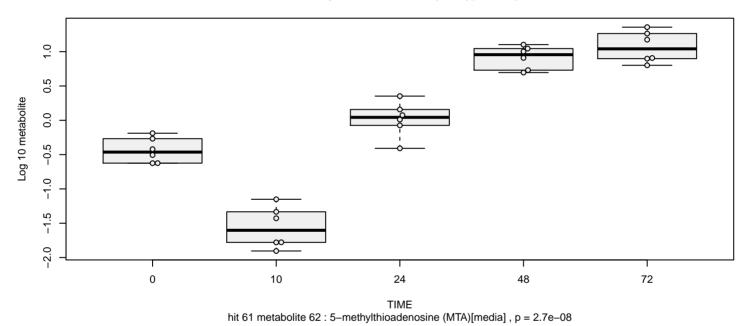


 $\label{eq:TIME} \mbox{hit 59 metabolite 59 : 5-hydroxyindoleacetate[media] , p = 0.042}$

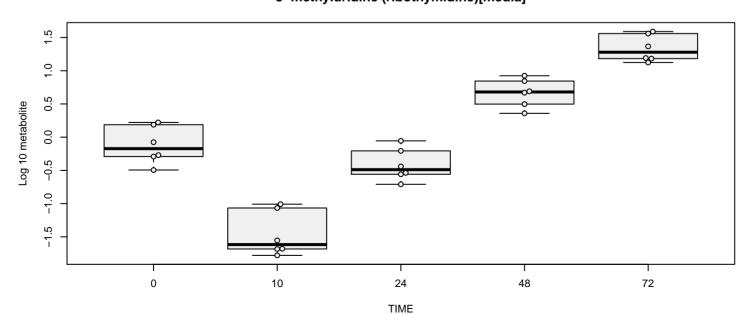
5-hydroxylysine[media]



5-methylthioadenosine (MTA)[media]

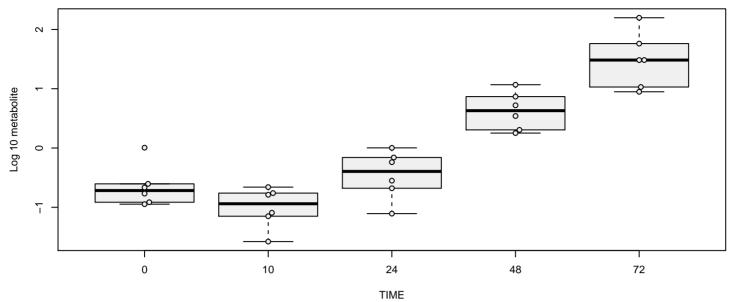


5-methyluridine (ribothymidine)[media]



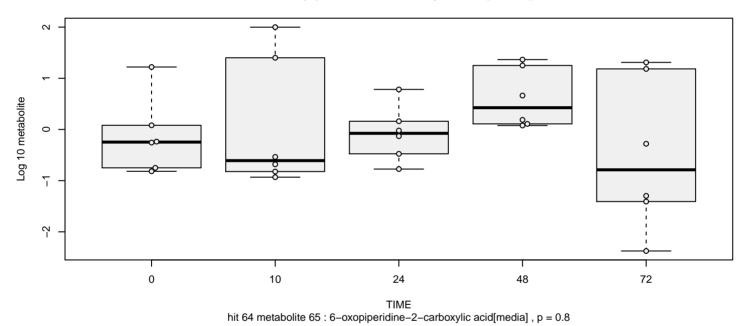
hit 62 metabolite 63 : 5-methyluridine (ribothymidine)[media] , p = 8.6e-08

5-oxoproline[media]

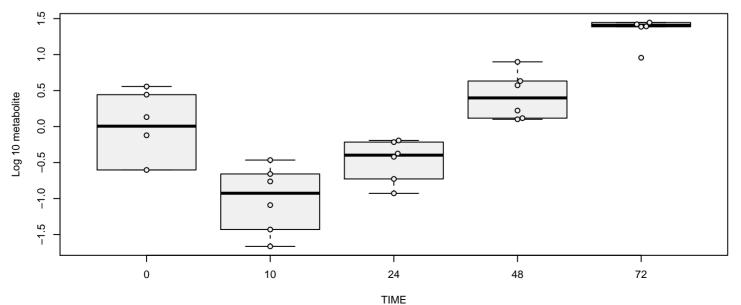


hit 63 metabolite 64 : 5-oxoproline[media] , p = 1.1e-11

6-oxopiperidine-2-carboxylic acid[media]

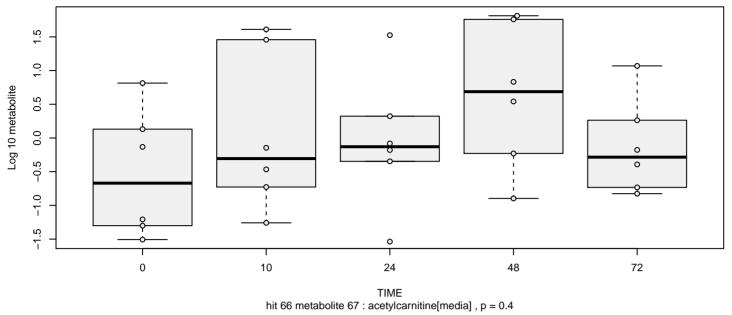


7-methylguanine[media]

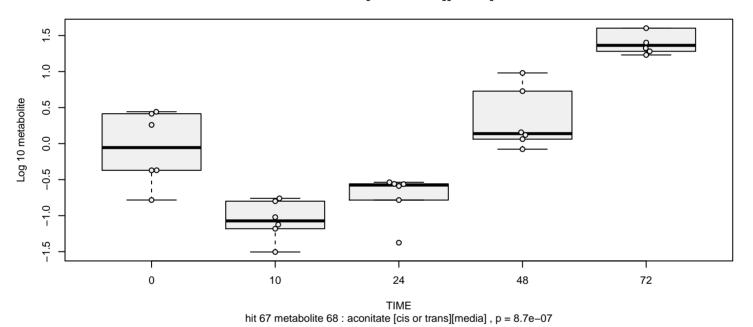


hit 65 metabolite 66 : 7-methylguanine[media] , p = 7e-07

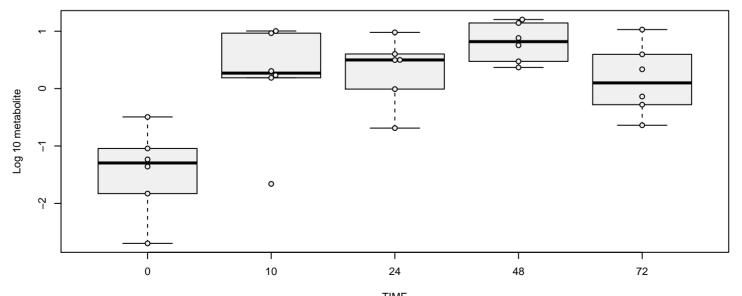
acetylcarnitine[media]



aconitate [cis or trans][media]

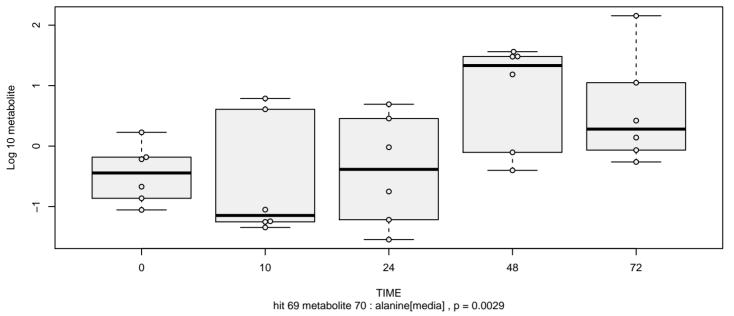


adenine[media]

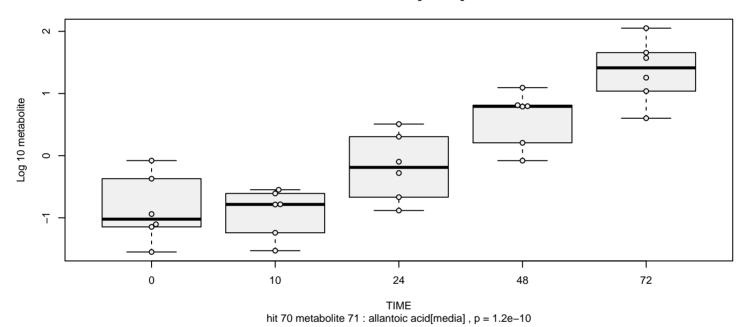


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 68 metabolite 69 : adenine[media] , p = 0.011} \end{split}$$

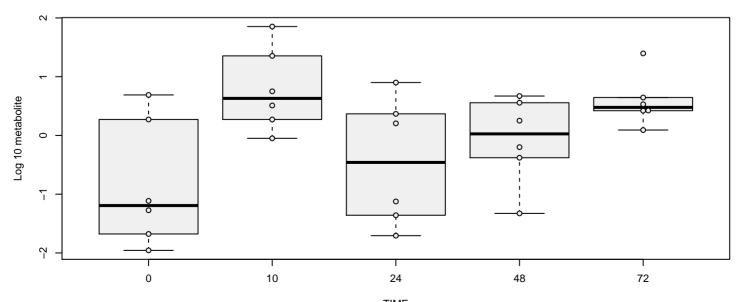
alanine[media]



allantoic acid[media]

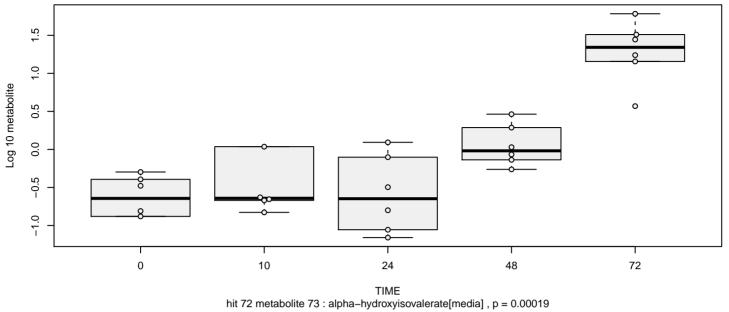


allantoin[media]

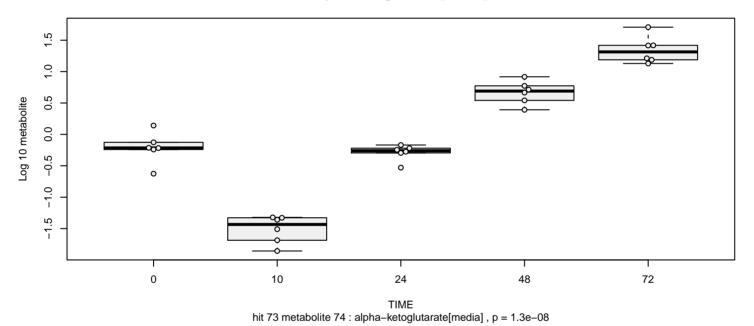


 $\label{eq:time} \begin{array}{c} \text{TIME} \\ \text{hit 71 metabolite 72 : allantoin[media] , p = 0.14} \end{array}$

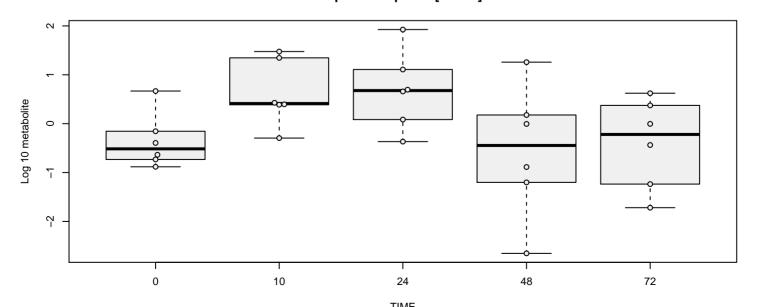
alpha-hydroxyisovalerate[media]



alpha-ketoglutarate[media]

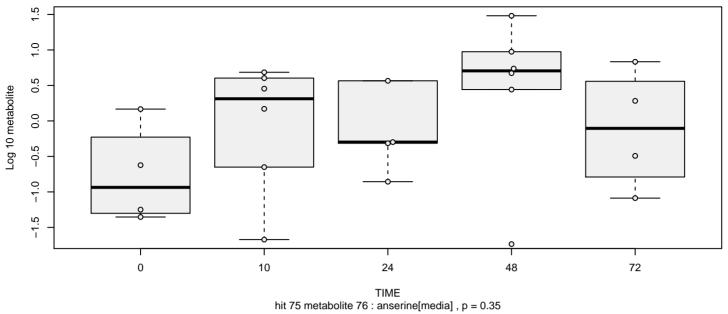


alpha-tocopherol[media]

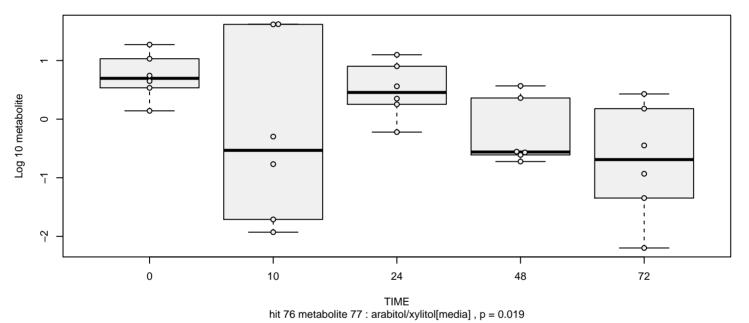


 $\label{eq:TIME} \mbox{TIME} $$ \mbox{hit 74 metabolite 75 : alpha-tocopherol[media] , p = 0.18 $$ }$

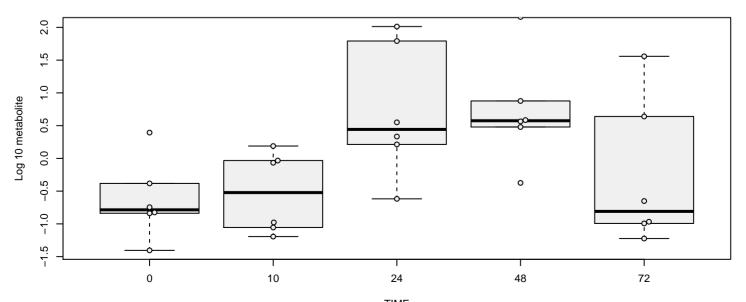
anserine[media]



arabitol/xylitol[media]

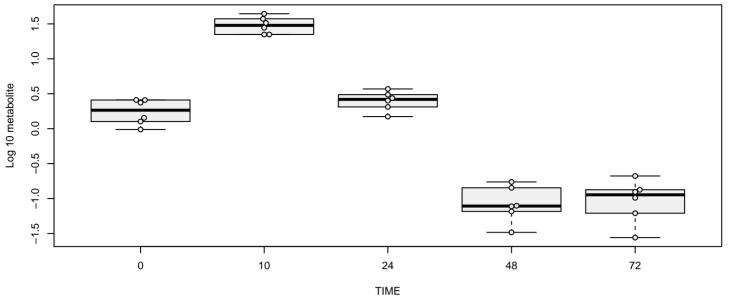


arabonate/xylonate[media]



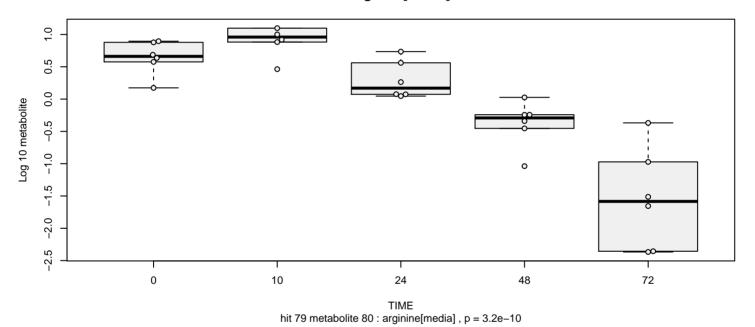
$$\label{eq:time_time} \begin{split} & \text{TIME} \\ & \text{hit 77 metabolite 78 : arabonate/xylonate[media] , p = 0.27} \end{split}$$

arachidonate (20:4n6)[media]

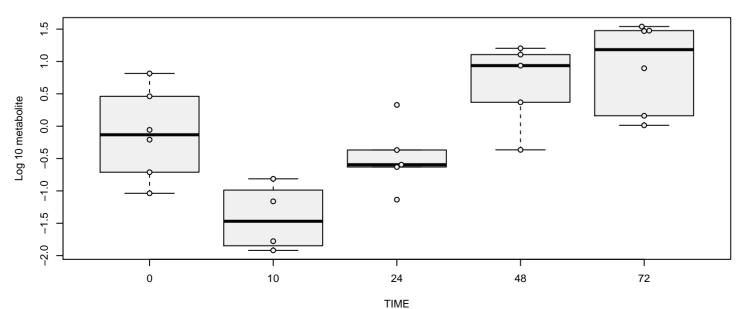


hit 78 metabolite 79 : arachidonate (20:4n6)[media] , p = 1.6e-07

arginine[media]

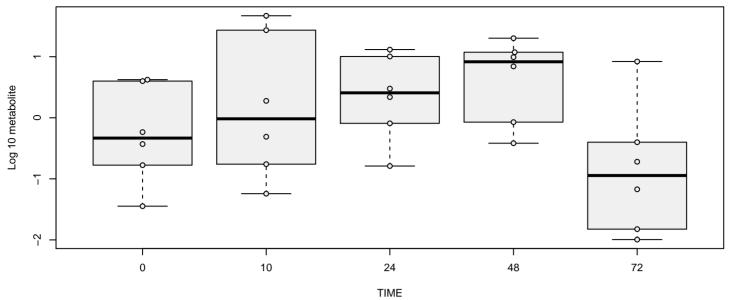


argininosuccinate[media]



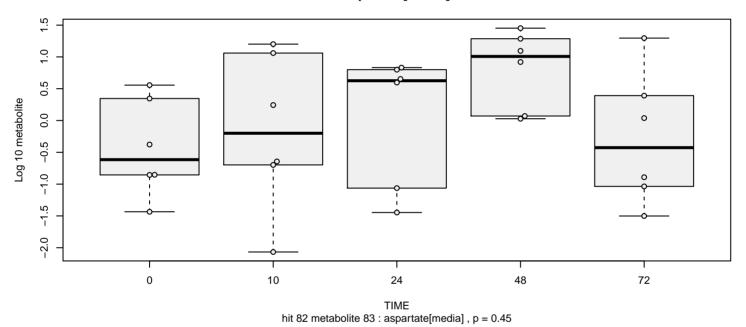
hit 80 metabolite 81 : argininosuccinate[media] , p = 0.00047

asparagine[media]

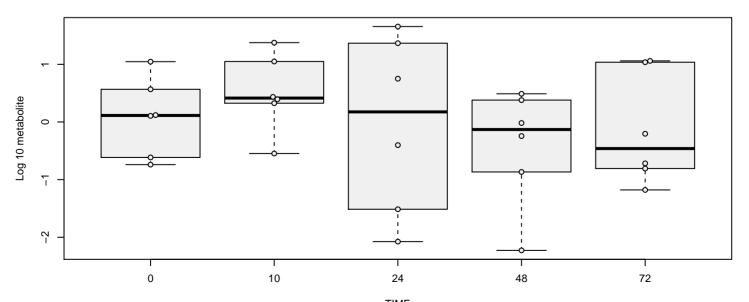


hit 81 metabolite 82 : asparagine[media] , p = 0.36

aspartate[media]

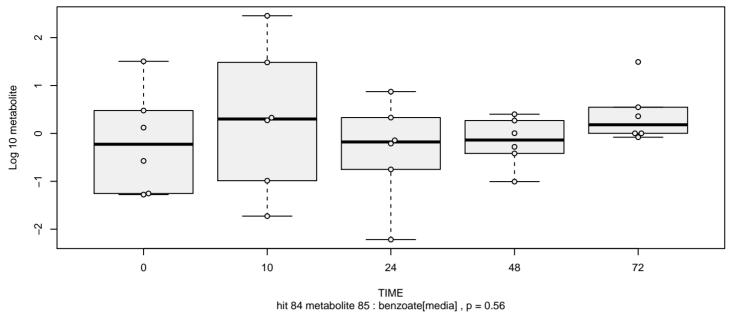


behenoyl sphingomyelin (d18:1/22:0)*[media]

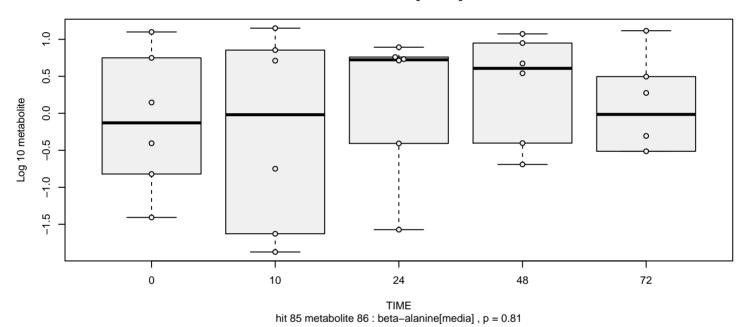


 $\label{total TIME} TIME $$ hit 83 metabolite 84 : behenoyl sphingomyelin (d18:1/22:0)*[media] , p = 0.29$

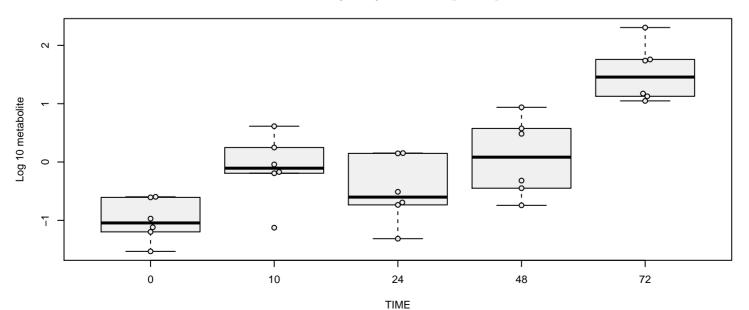
benzoate[media]



beta-alanine[media]

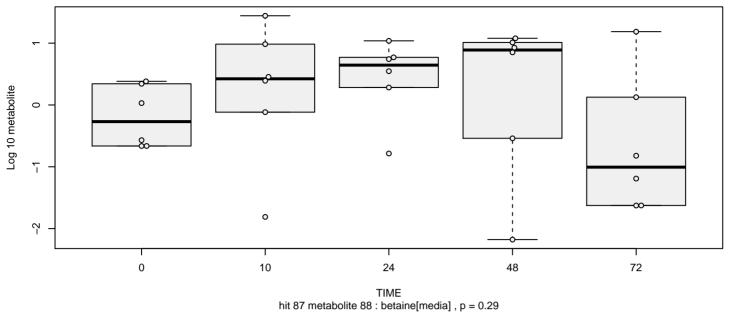


beta-hydroxyisovalerate[media]

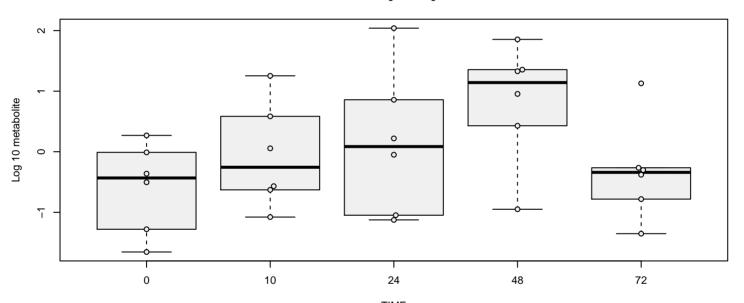


hit 86 metabolite 87 : beta-hydroxyisovalerate[media] , p = 3e-07

betaine[media]

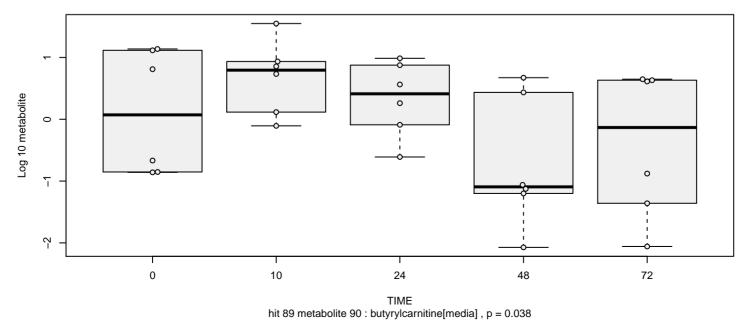


biotin[media]

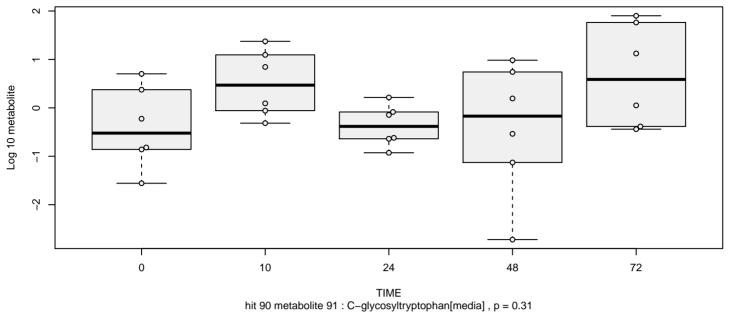


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 88 metabolite 89 : biotin[media] , p = 0.43} \end{split}$$

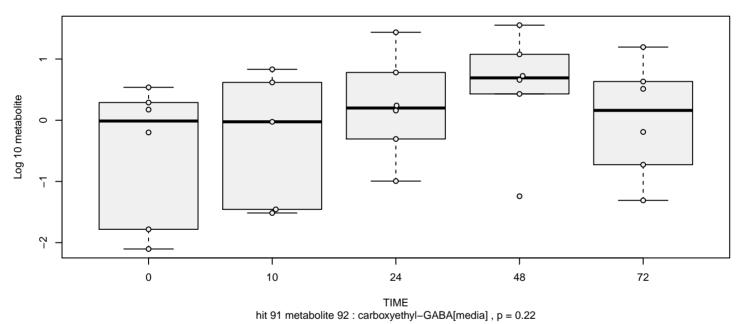
butyrylcarnitine[media]



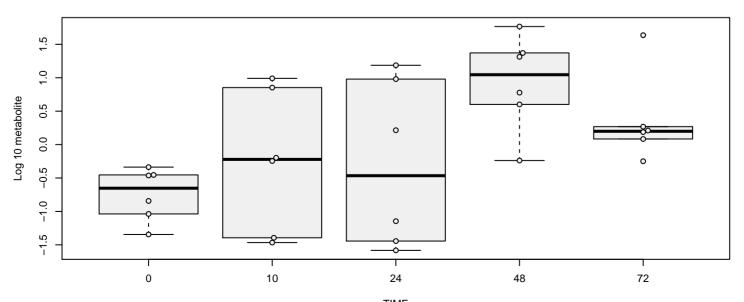
C-glycosyltryptophan[media]



carboxyethyl-GABA[media]

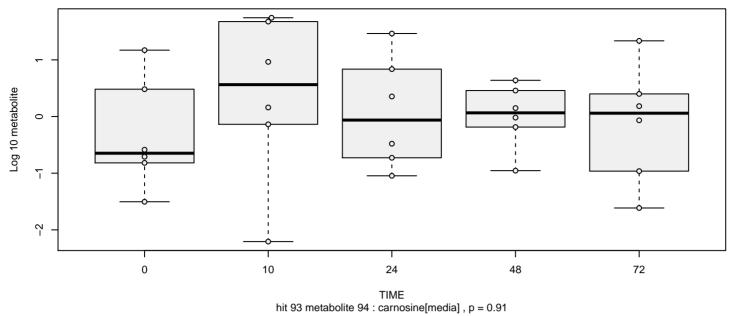


carnitine[media]

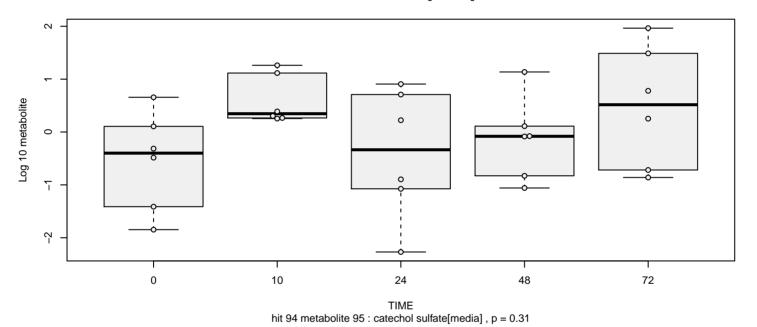


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 92 metabolite 93 : carnitine[media] , p = 0.0083} \end{split}$$

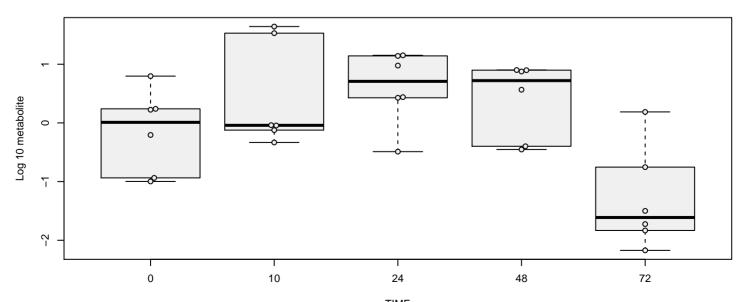
carnosine[media]



catechol sulfate[media]

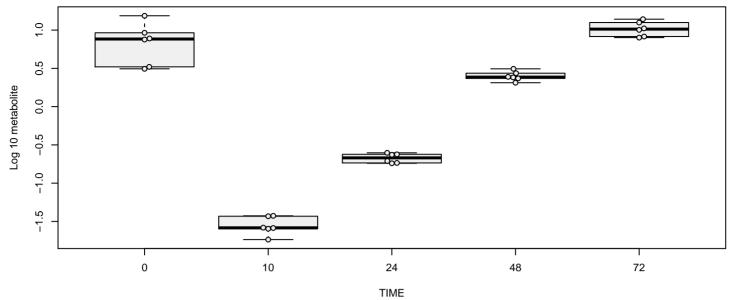


choline[media]



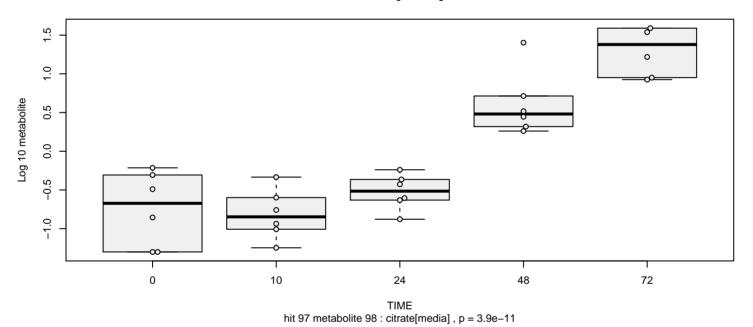
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 95 metabolite 96 : choline[media] , p = 0.017} \end{split}$$

choline phosphate[media]

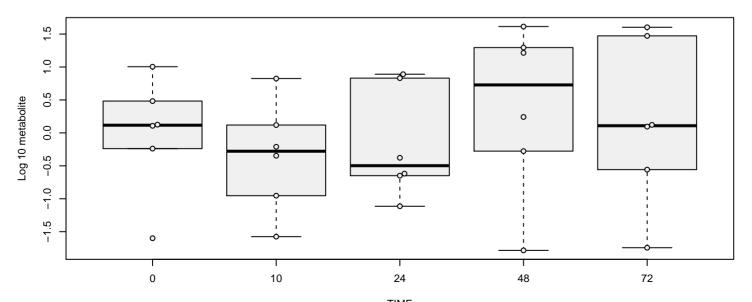


hit 96 metabolite 97 : choline phosphate[media] , p = 0.0089

citrate[media]

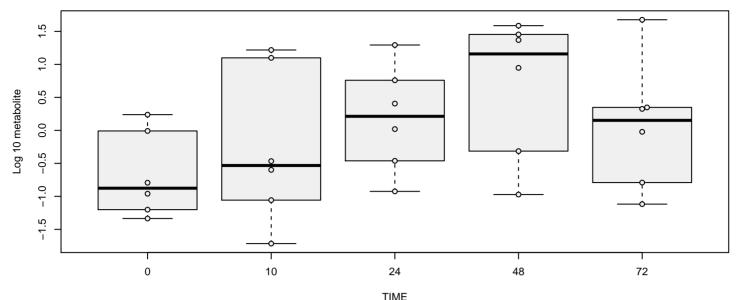


citrulline[media]



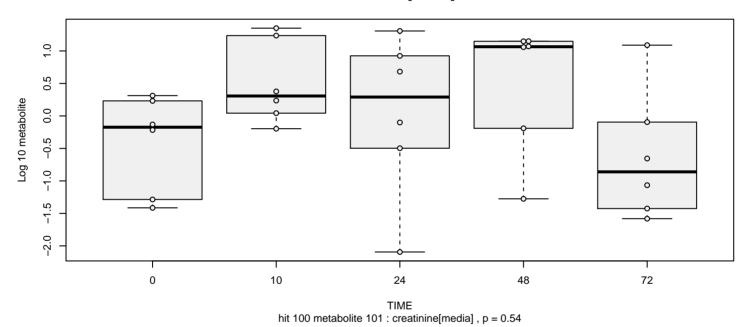
$$\label{eq:time} \begin{split} & \text{TIME} \\ & \text{hit 98 metabolite 99 : citrulline[media] , p = 0.35} \end{split}$$

creatine[media]

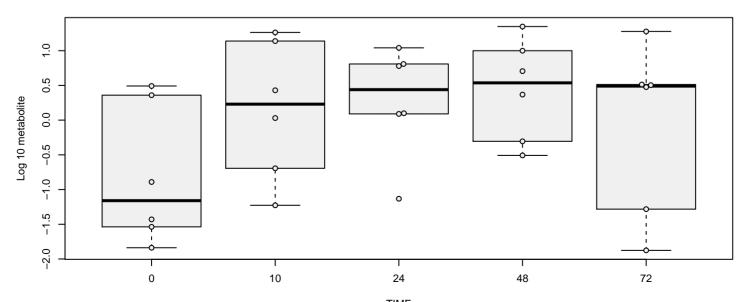


 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 99 metabolite 100 : creatine[media] , p = 0.099 \\ \mbox{}$

creatinine[media]

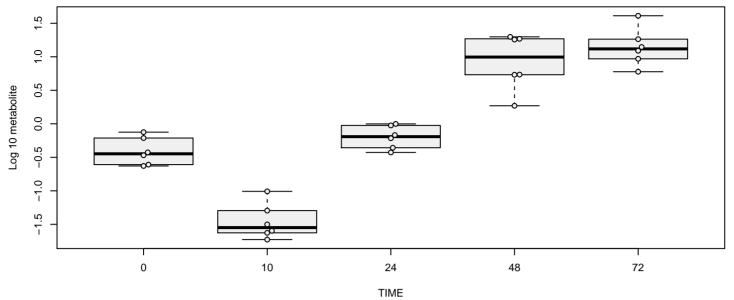


cystathionine[media]



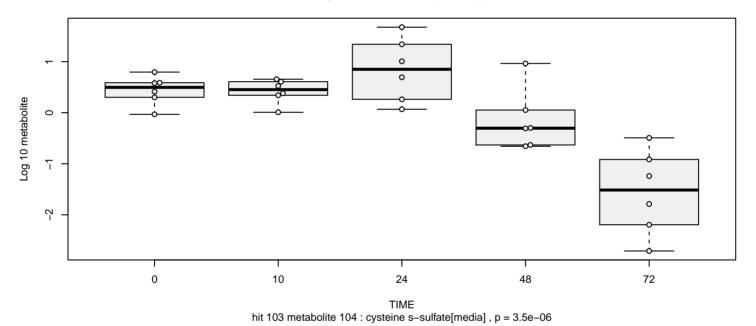
 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 101 metabolite 102 : cystathionine[media] , p = 0.31 \\ \mbox{}$

cysteine[media]

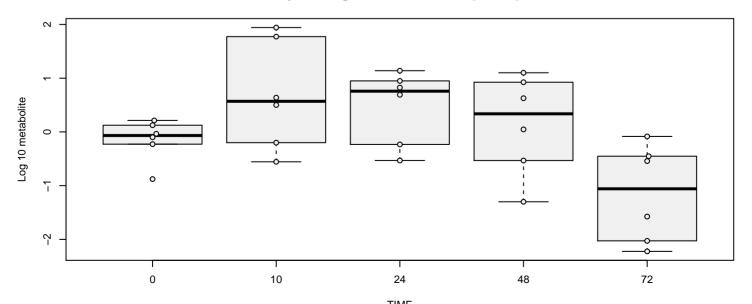


hit 102 metabolite 103 : cysteine[media] , p = 9.4e-09

cysteine s-sulfate[media]

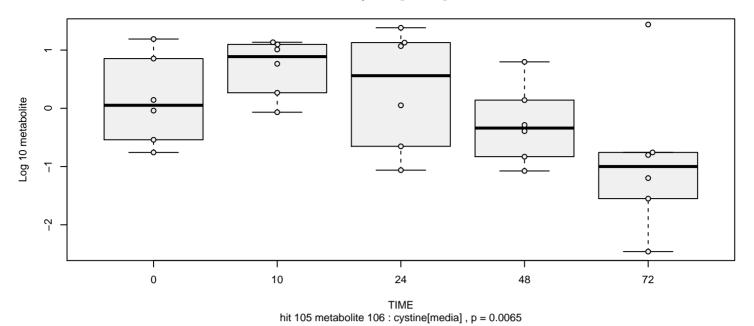


cysteine-glutathione disulfide[media]

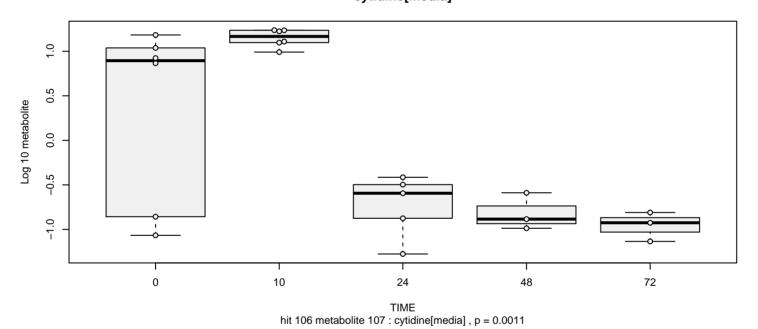


 $\label{thm:total} TIME $$ $ hit 104 metabolite 105 : cysteine-glutathione disulfide[media] , p = 0.013$

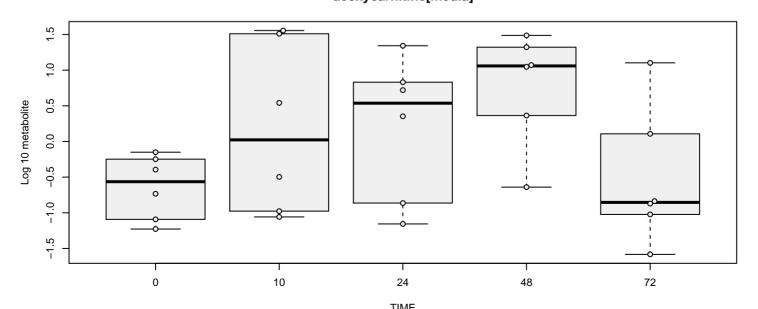
cystine[media]



cytidine[media]

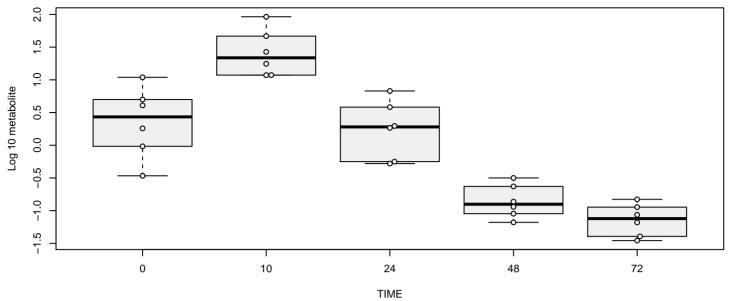


deoxycarnitine[media]



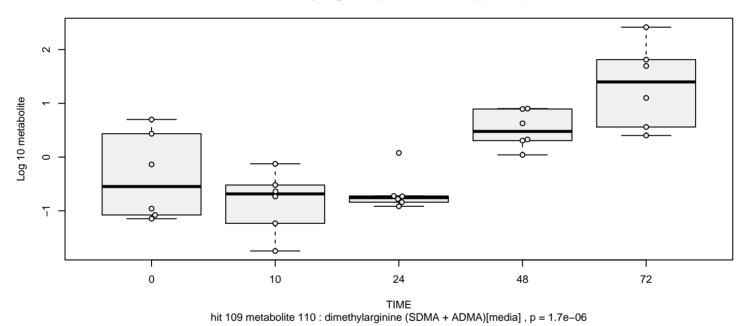
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 107 metabolite 108 : deoxycarnitine[media] , p = 0.79} \end{split}$$

dihomo-linolenate (20:3n3 or n6)[media]

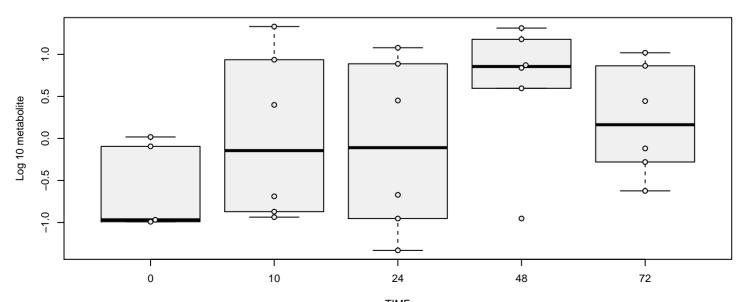


hit 108 metabolite 109 : dihomo-linolenate (20:3n3 or n6)[media] , p = 7.3e-08

dimethylarginine (SDMA + ADMA)[media]

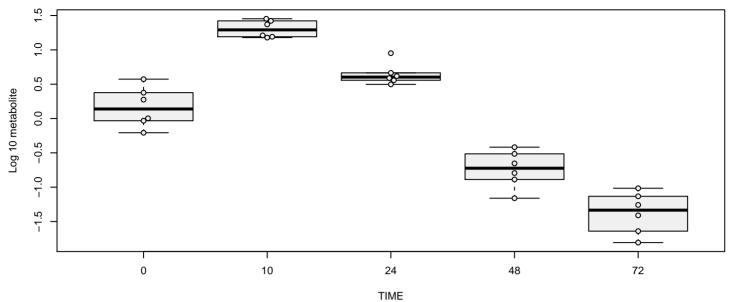


dimethylglycine[media]



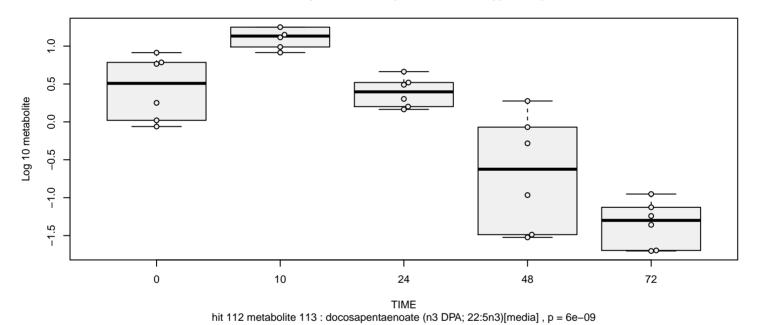
 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 110 metabolite 111 : dimethylglycine[media] , p = 0.054 \\ \mbox{}$

docosahexaenoate (DHA; 22:6n3)[media]

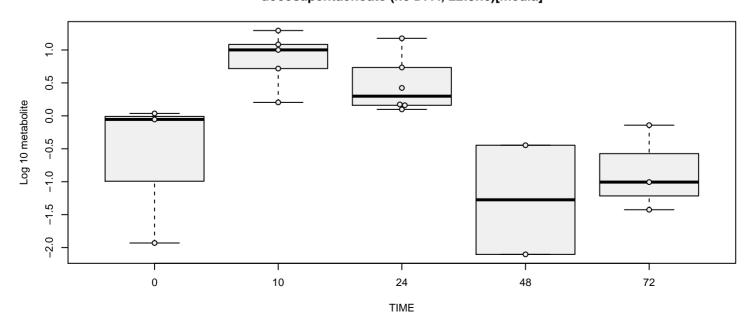


hit 111 metabolite 112 : docosahexaenoate (DHA; 22:6n3)[media] , p = 2.1e-08

docosapentaenoate (n3 DPA; 22:5n3)[media]

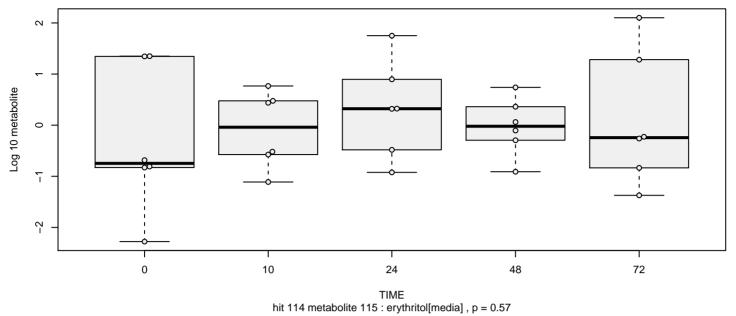


docosapentaenoate (n6 DPA; 22:5n6)[media]

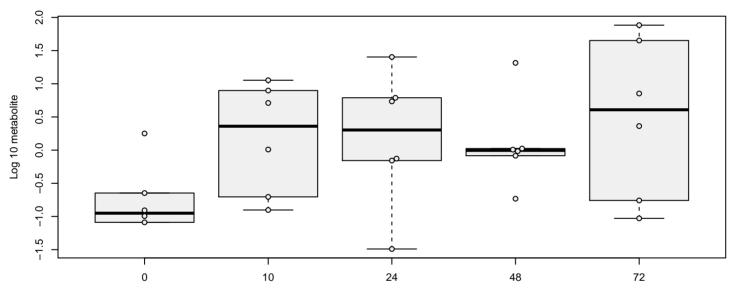


hit 113 metabolite 114 : docosapentaenoate (n6 DPA; 22:5n6)[media] , p = 0.052

erythritol[media]

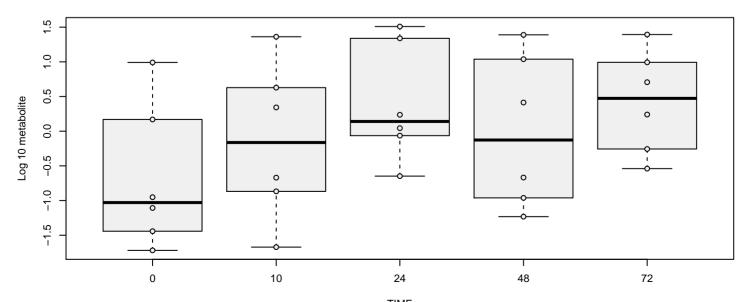


erythronate*[media]



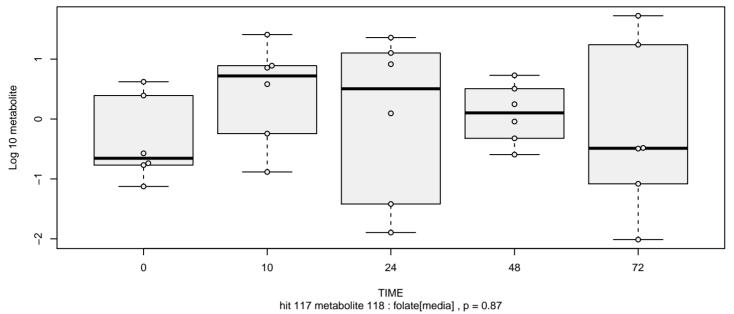
 $\label{eq:time} TIME $$ $hit 115 metabolite 116 : erythronate*[media] , p = 0.052$

ethylmalonate[media]

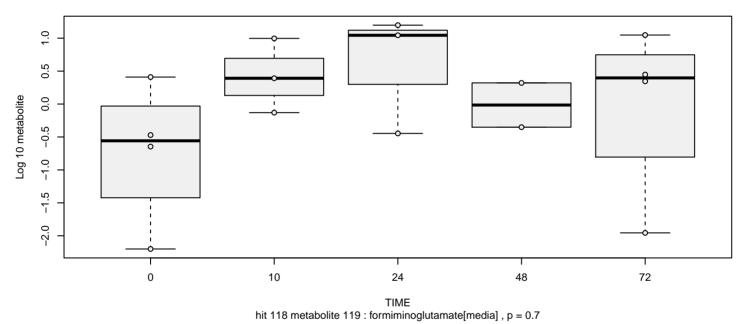


 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 116 metabolite 117 : ethylmalonate[media] , p = 0.11 \\ \mbox{}$

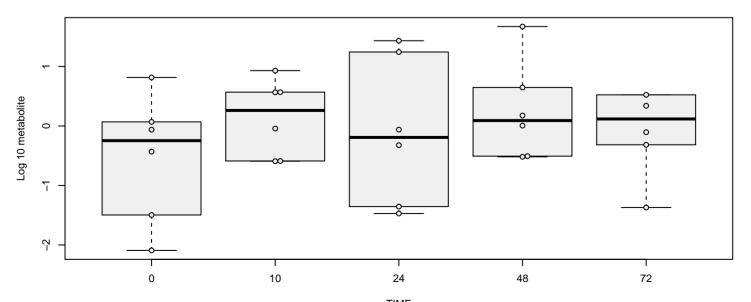
folate[media]



formiminoglutamate[media]

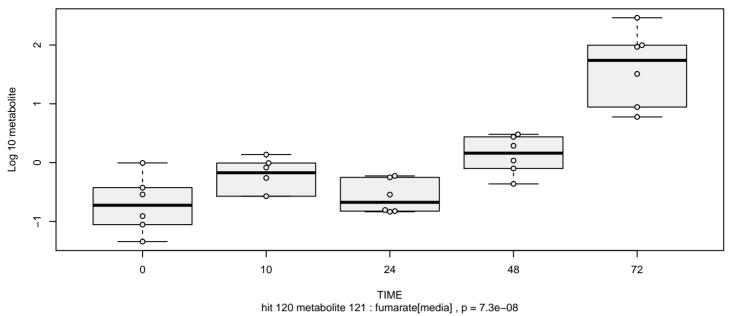


fructose[media]

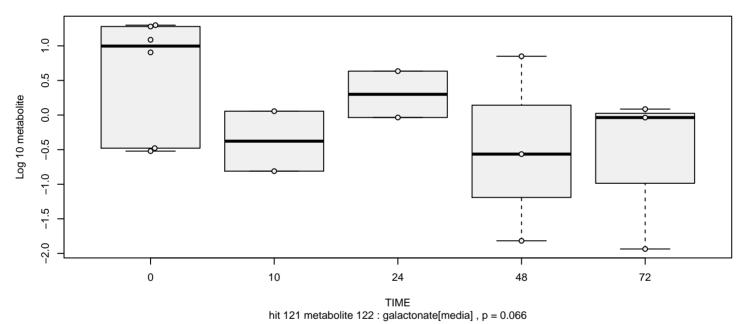


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 119 metabolite 120 : fructose[media] , p = 0.25} \end{split}$$

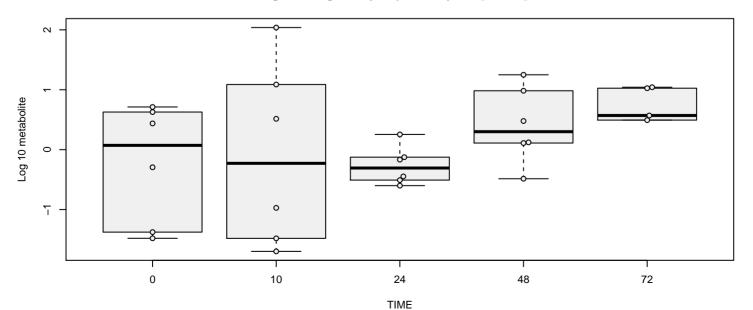
fumarate[media]



galactonate[media]

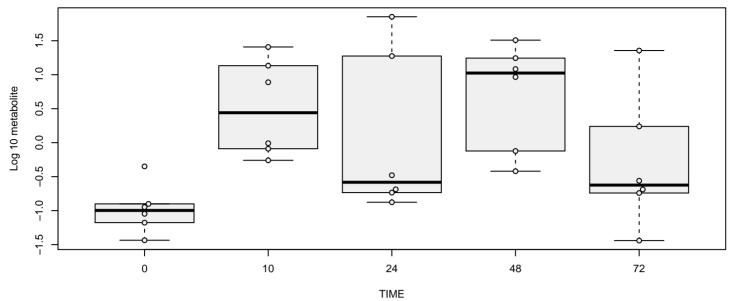


gamma-glutamyl-epsilon-lysine[media]



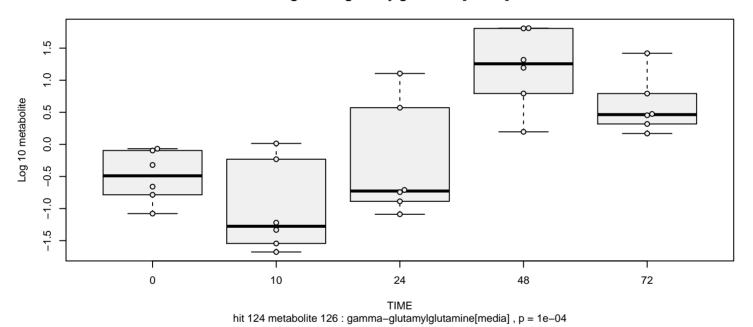
hit 122 metabolite 123 : gamma-glutamyl-epsilon-lysine[media] , p = 0.29

gamma-glutamylglutamate[media]

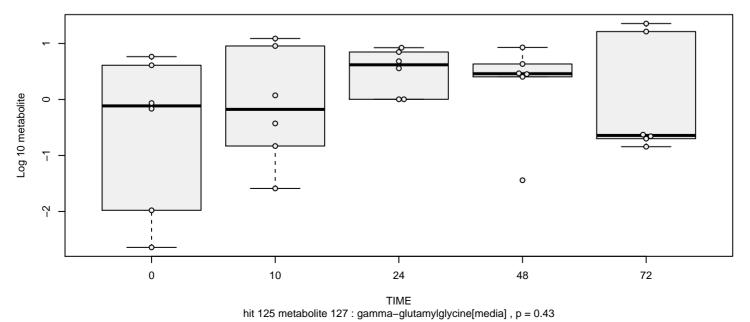


hit 123 metabolite 125 : gamma–glutamylglutamate[media] , p = 0.45

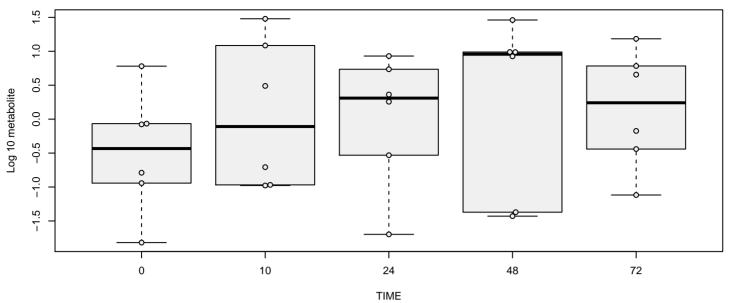
gamma-glutamylglutamine[media]



gamma-glutamylglycine[media]

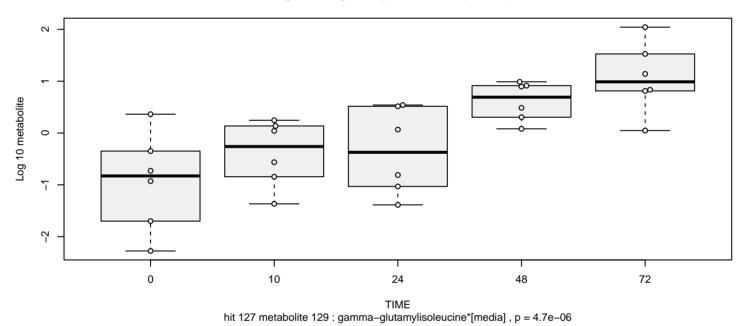


gamma-glutamylhistidine[media]

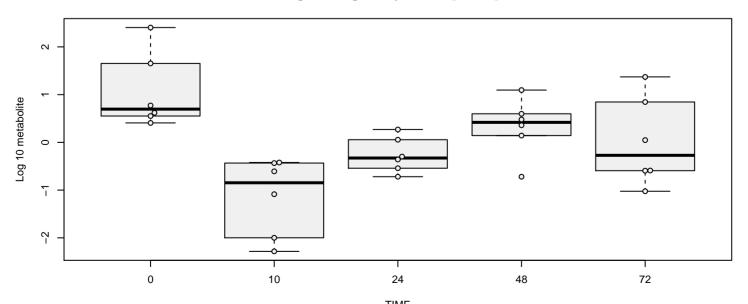


hit 126 metabolite 128 : gamma-glutamylhistidine[media] , p = 0.32

gamma-glutamylisoleucine*[media]

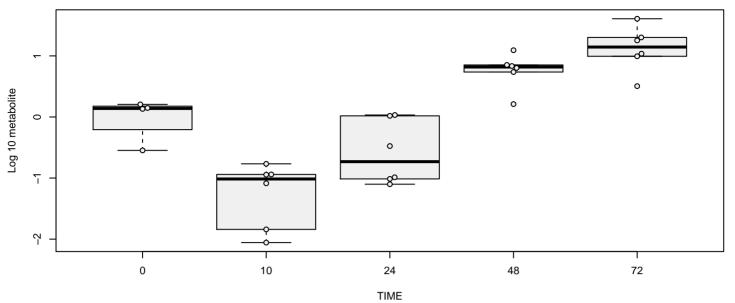


gamma-glutamylleucine[media]



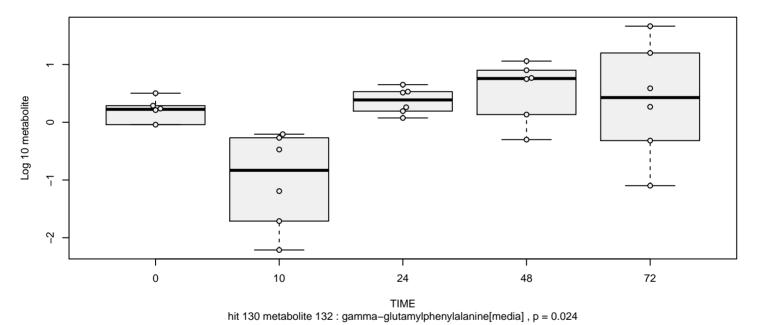
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 128 metabolite 130 : gamma-glutamylleucine[media] , p = 0.95} \end{split}$$

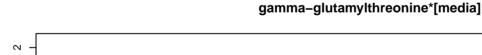
gamma-glutamylmethionine[media]

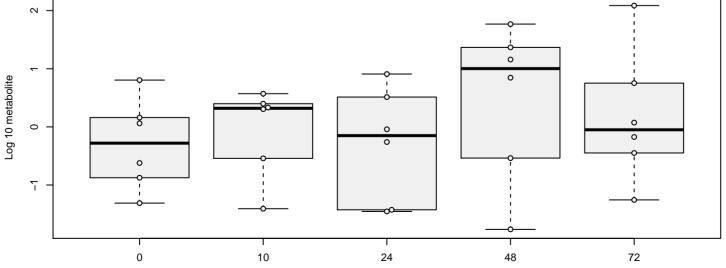


hit 129 metabolite 131 : gamma-glutamylmethionine[media] , p = 2.4e-06

gamma-glutamylphenylalanine[media]

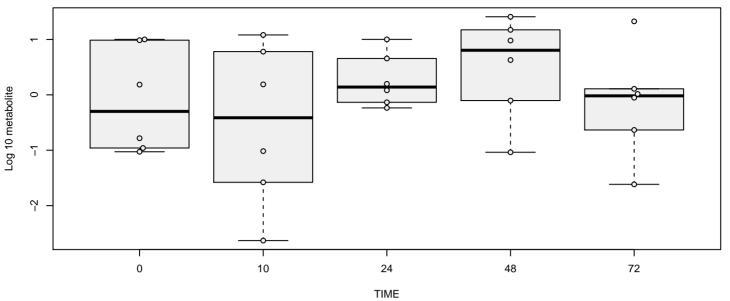






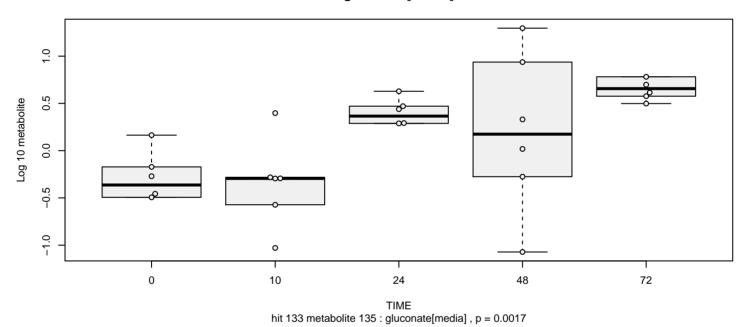
$$\label{eq:time} \begin{split} & \text{TIME} \\ & \text{hit 131 metabolite 133 : gamma-glutamylthreonine*[media] , p = 0.26} \end{split}$$

gamma-glutamylvaline[media]

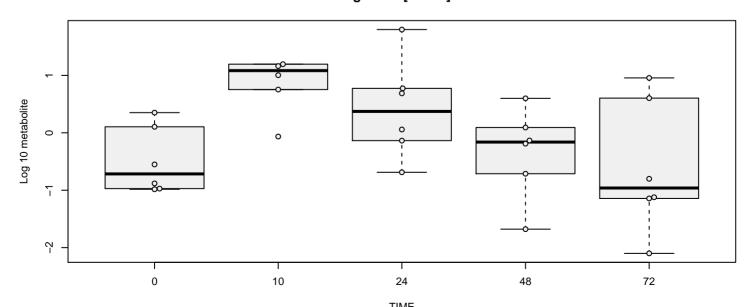


hit 132 metabolite 134 : gamma–glutamylvaline[media] , p = 0.53

gluconate[media]

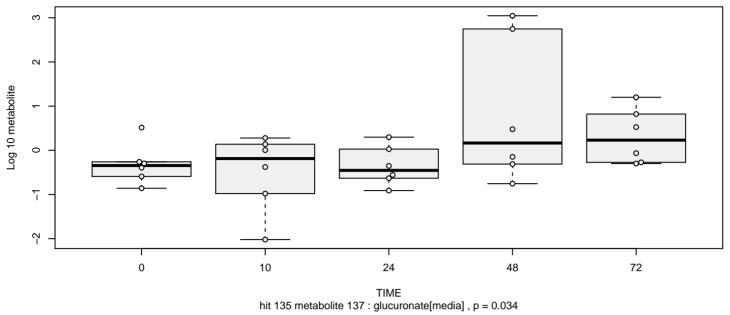


glucose[media]

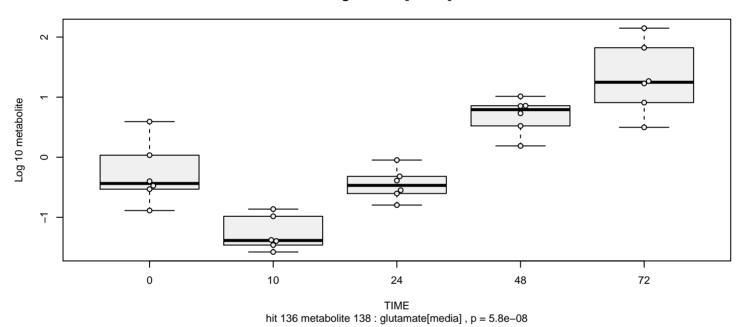


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 134 metabolite 136 : glucose[media] , p = 0.1 \end{split}$$

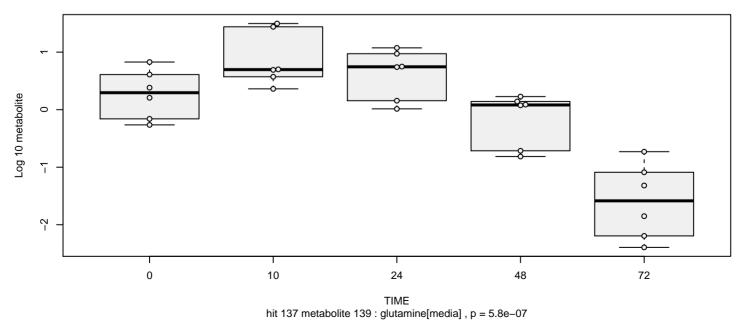
glucuronate[media]



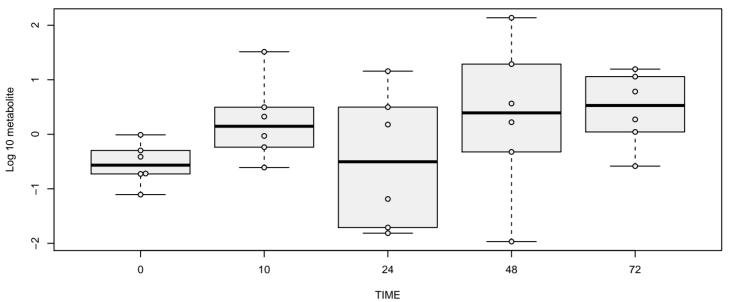
glutamate[media]



glutamine[media]

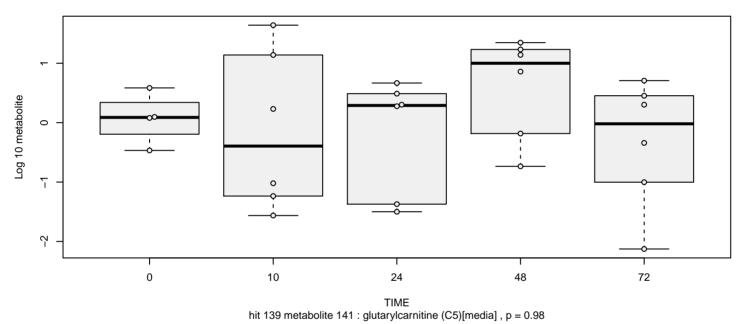


glutarate (pentanedioate)[media]

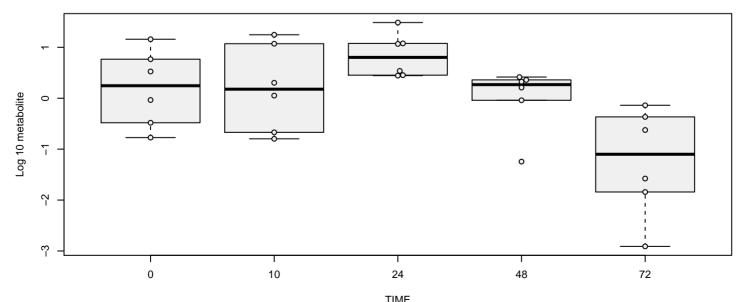


hit 138 metabolite 140 : glutarate (pentanedioate)[media] , p = 0.098

glutarylcarnitine (C5)[media]

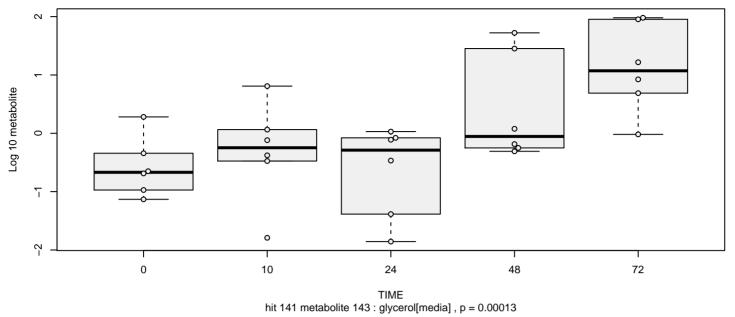


glycerate[media]

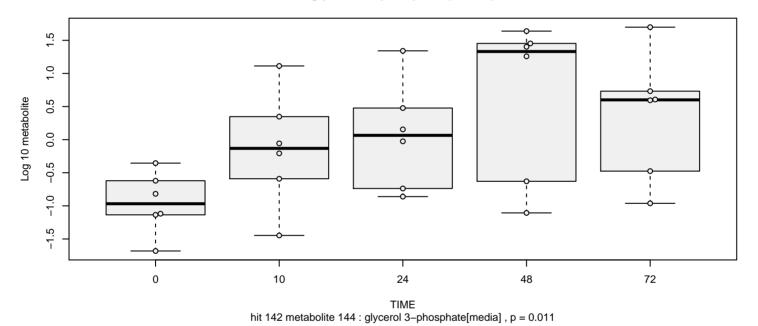


 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 140 metabolite 142 : glycerate[media] , p = 0.0031 \\ \mbox{}$

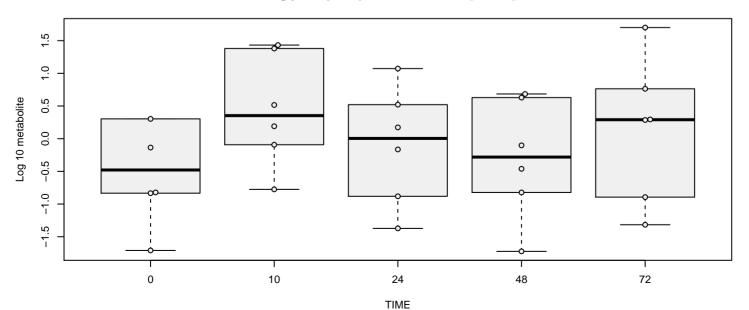
glycerol[media]



glycerol 3-phosphate[media]

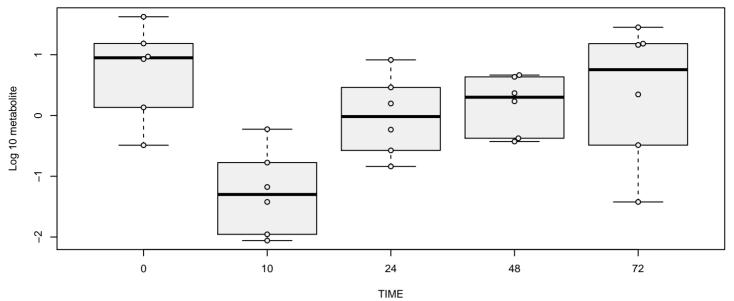


glycerophosphoethanolamine[media]



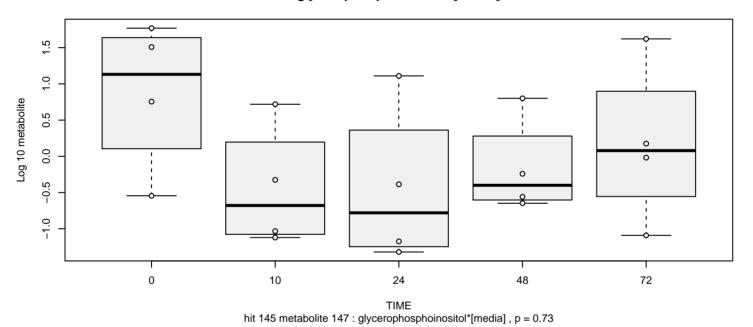
hit 143 metabolite 145 : glycerophosphoethanolamine[media] , p = 0.92

glycerophosphoglycerol[media]

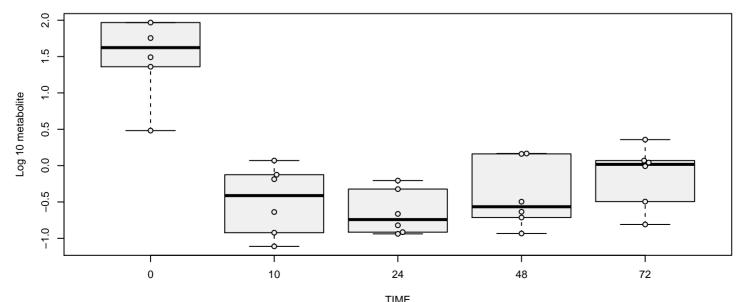


hit 144 metabolite 146 : glycerophosphoglycerol[media] , p = 0.35

glycerophosphoinositol*[media]

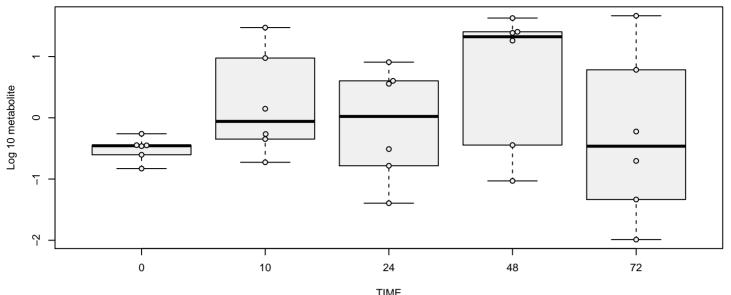


glycerophosphorylcholine (GPC)[media]



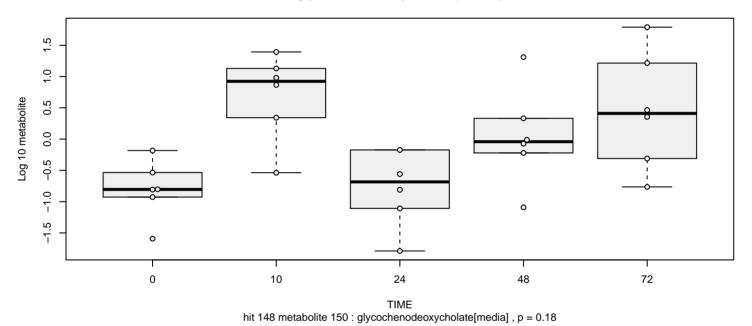
 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 146 metabolite 148 : glycerophosphorylcholine (GPC)[media] , p = 0.034 \\ \mbox{}$

glycine[media]

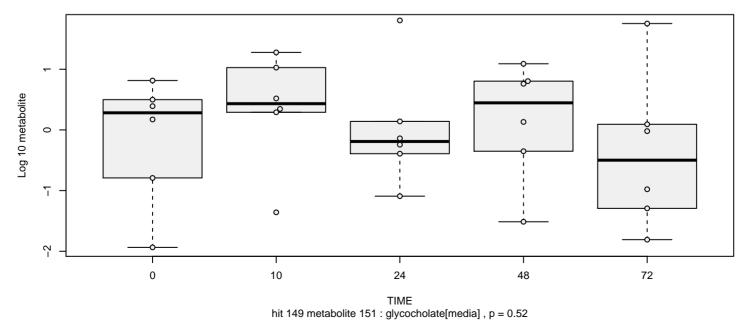


$$\label{eq:time} \begin{split} & \text{TIME} \\ & \text{hit 147 metabolite 149 : glycine[media] , p = 0.63} \end{split}$$

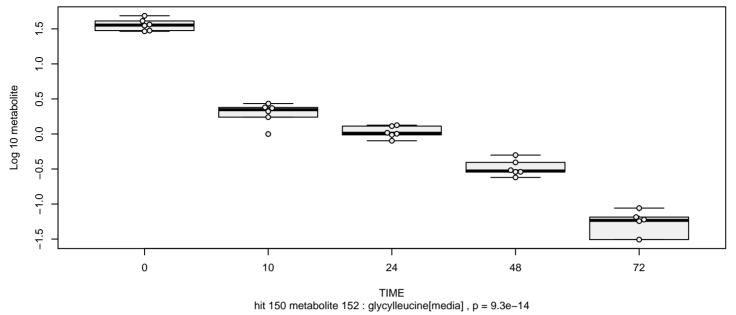
glycochenodeoxycholate[media]



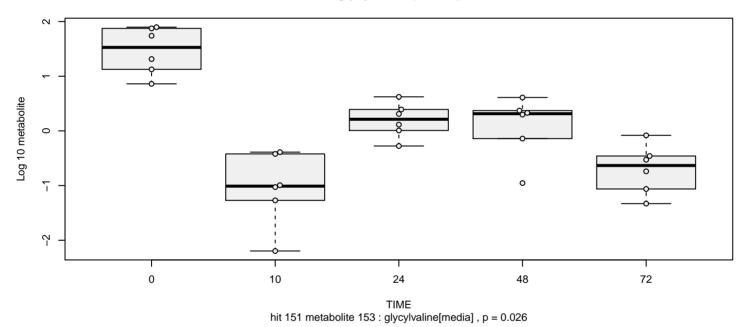
glycocholate[media]



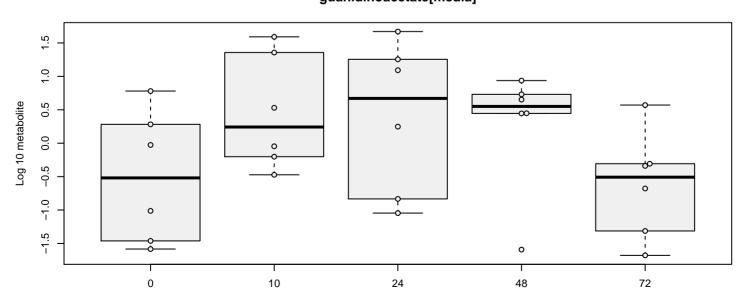
glycylleucine[media]



glycylvaline[media]

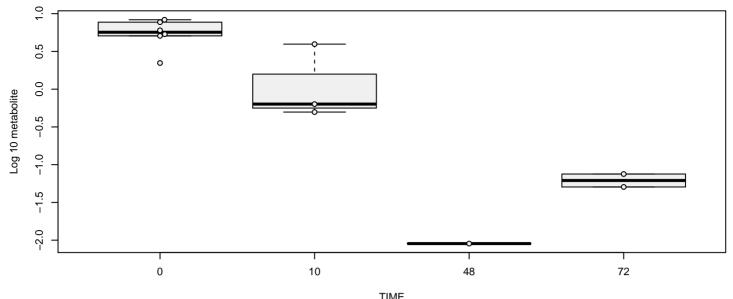


guanidinoacetate[media]



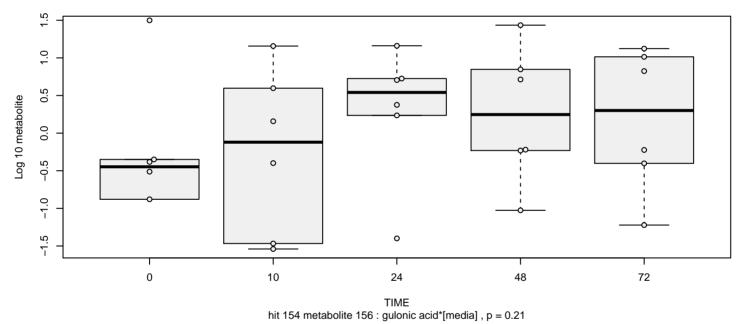
 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 152 metabolite 154 : guanidinoacetate[media] , p = 0.47 \\ \mbox{}$

guanine[media]

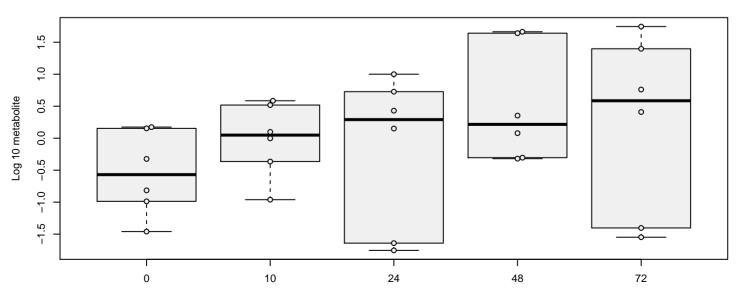


TIME hit 153 metabolite 155 : guanine[media] , p = 0.00024

gulonic acid*[media]

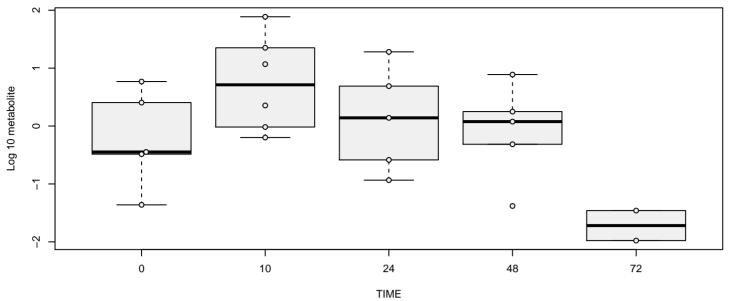


HEPES[media]



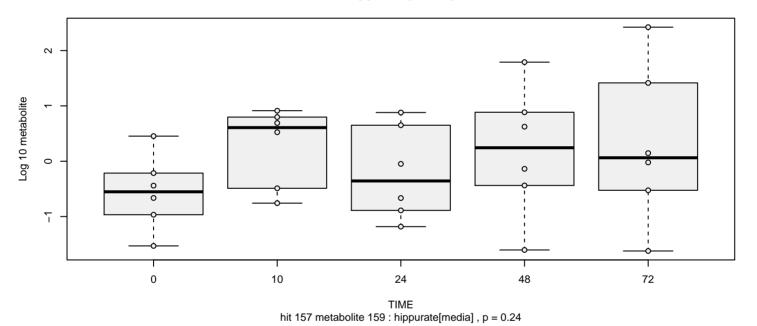
$$\label{eq:TIME} \begin{split} &\text{TIME}\\ &\text{hit 155 metabolite 157}: \text{HEPES[media]} \text{ , p = 0.13} \end{split}$$

hexanoylcarnitine[media]

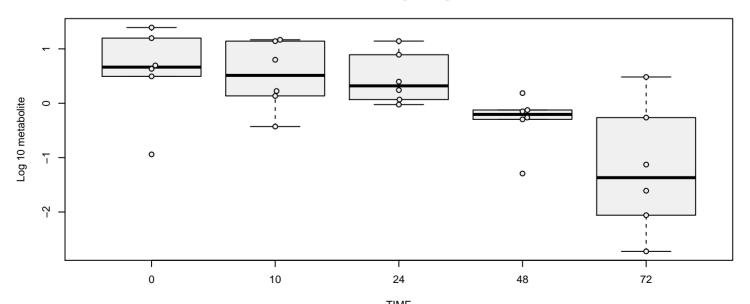


hit 156 metabolite 158 : hexanoylcarnitine[media] , p = 0.046

hippurate[media]

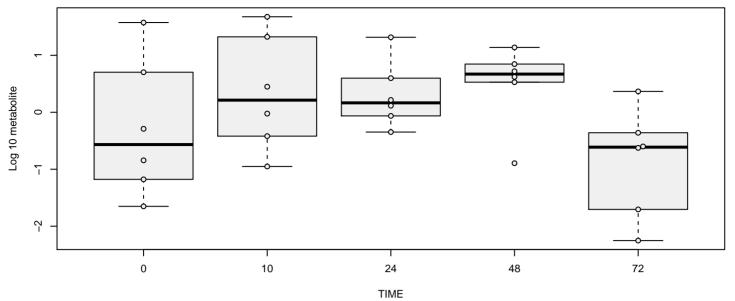


histidine[media]



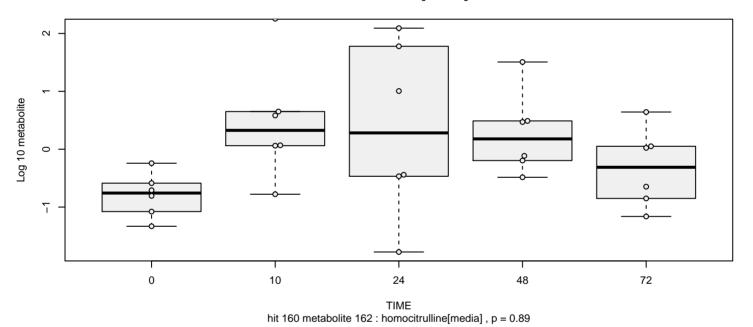
 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 158 metabolite 160 : histidine[media] , p = 3.9e-05} \\$

homoarginine[media]

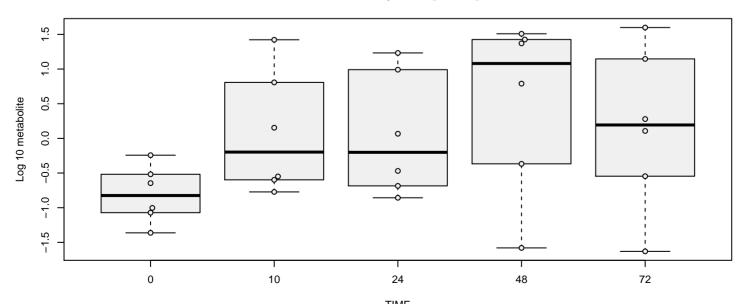


hit 159 metabolite 161 : homoarginine[media], p = 0.25

homocitrulline[media]

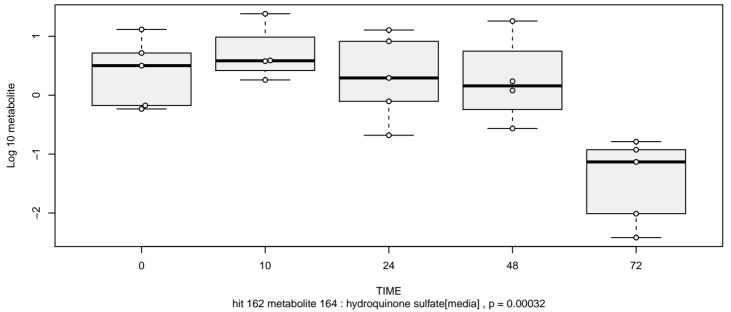


homostachydrine*[media]

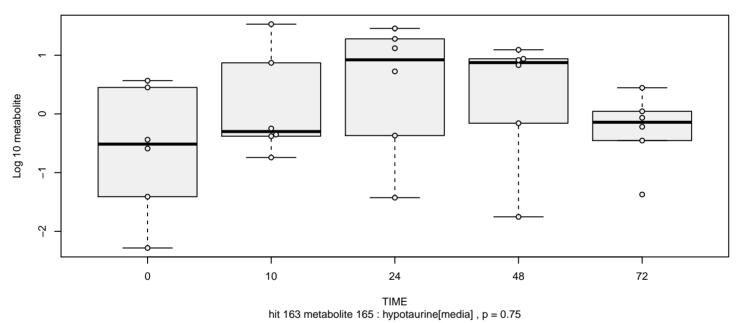


$$\label{eq:time} \begin{split} & \text{TIME} \\ & \text{hit 161 metabolite 163 : homostachydrine*[media] , p = 0.11} \end{split}$$

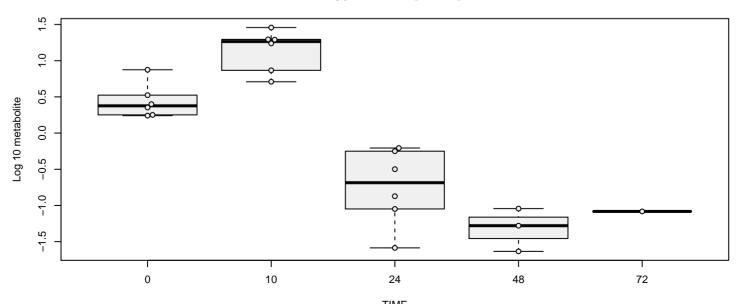
hydroquinone sulfate[media]



hypotaurine[media]

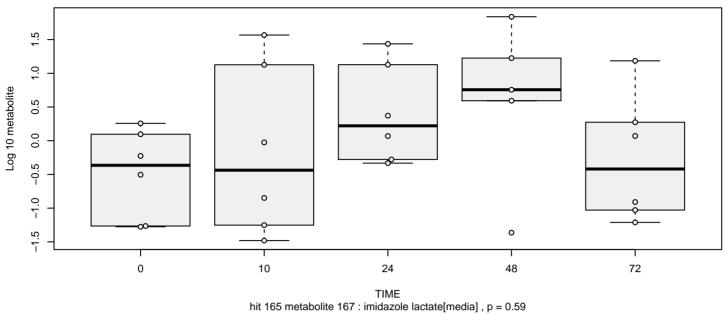


hypoxanthine[media]

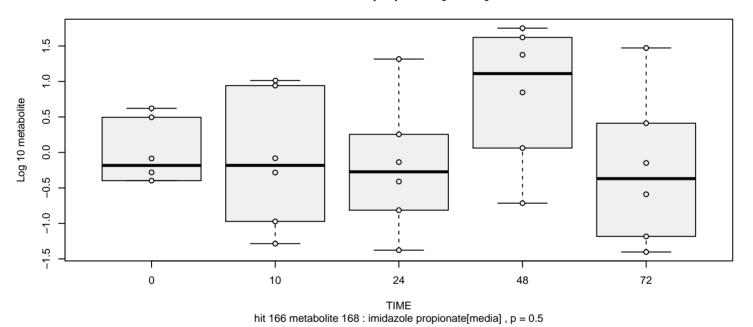


 $\label{eq:TIME} \mbox{hit 164 metabolite 166 : hypoxanthine[media] , p = 7.9e-05}$

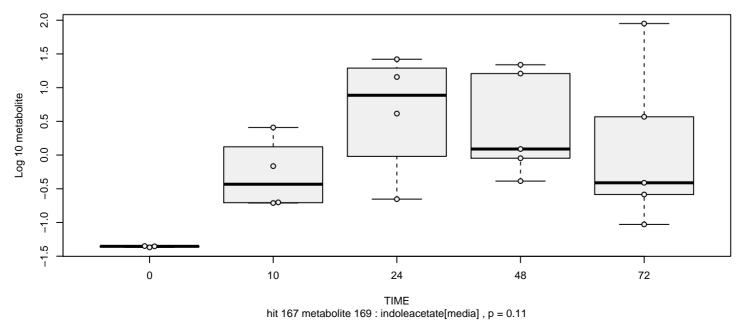
imidazole lactate[media]



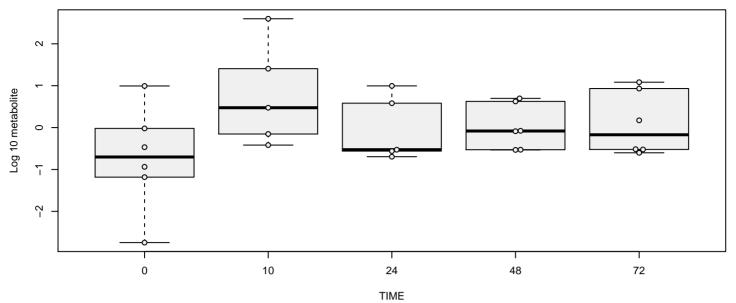
imidazole propionate[media]



indoleacetate[media]

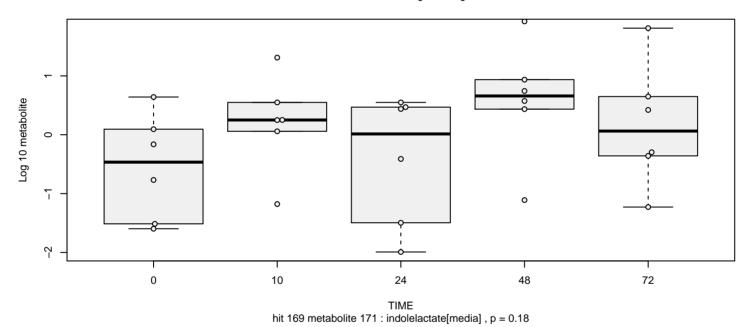


indoleacetylglycine[media]

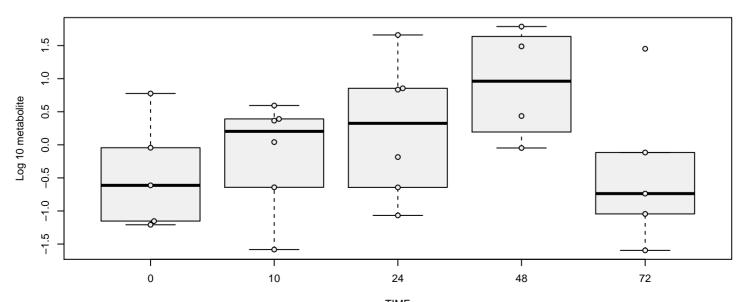


hit 168 metabolite 170 : indoleacetylglycine[media] , p = 0.59

indolelactate[media]

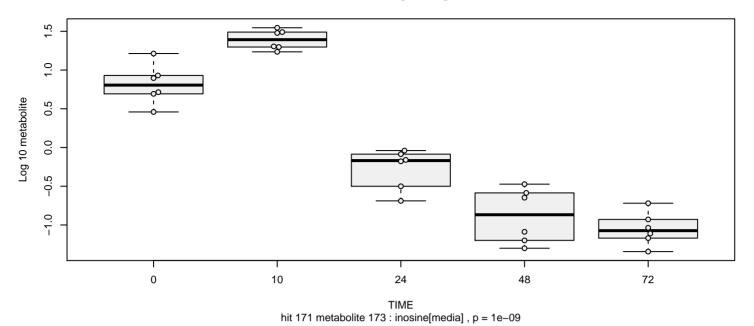


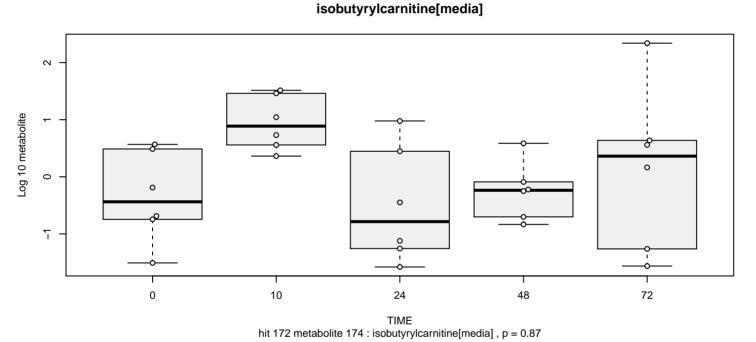
indolepropionate[media]



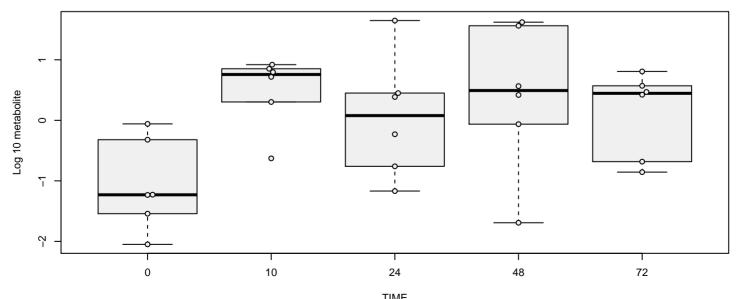
 $\label{eq:TIME} \mbox{hit 170 metabolite 172: indolepropionate[media] , p = 0.68}$

inosine[media]



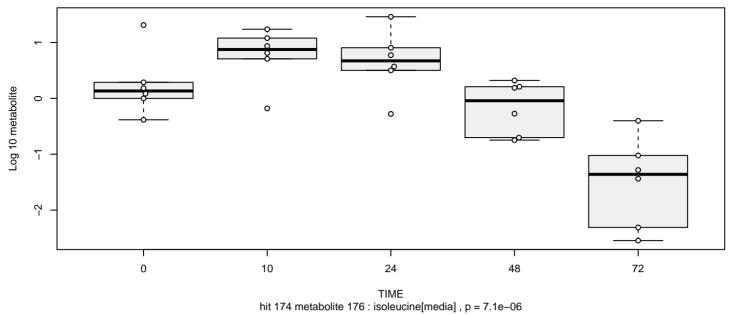


isocitrate[media]

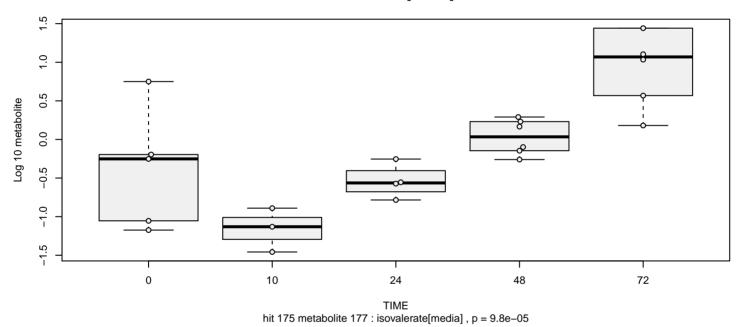


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 173 metabolite 175 : isocitrate[media] , p = 0.15} \end{split}$$

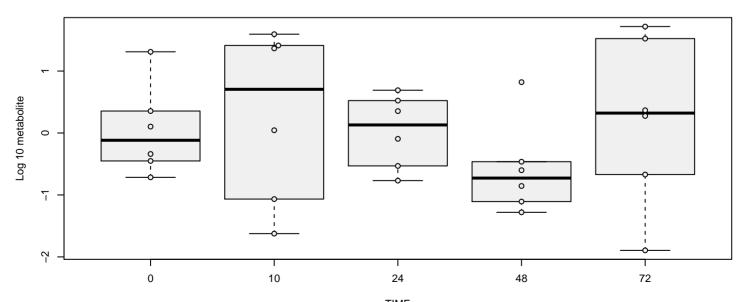
isoleucine[media]



isovalerate[media]

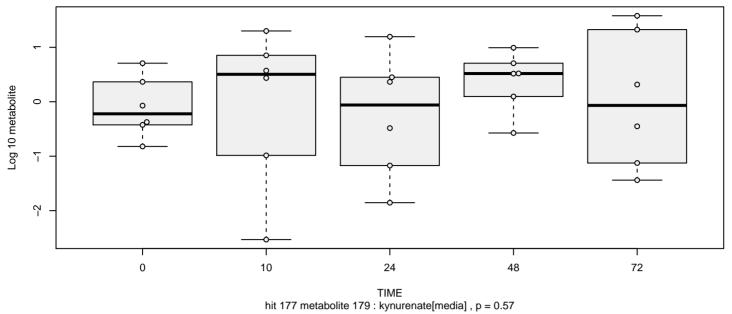


isovalerylglycine[media]

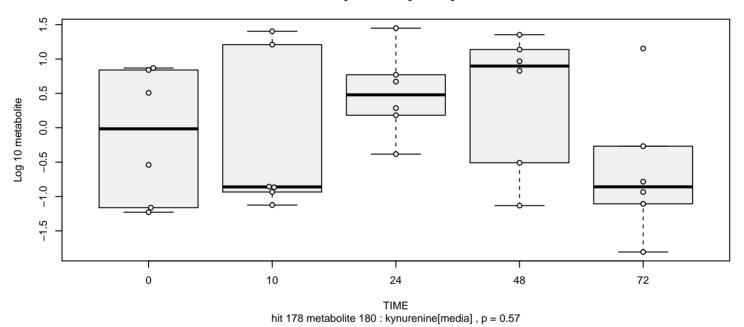


 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 176 metabolite 178 : isovalerylglycine[media] , p = 0.73 \\ \mbox{}$

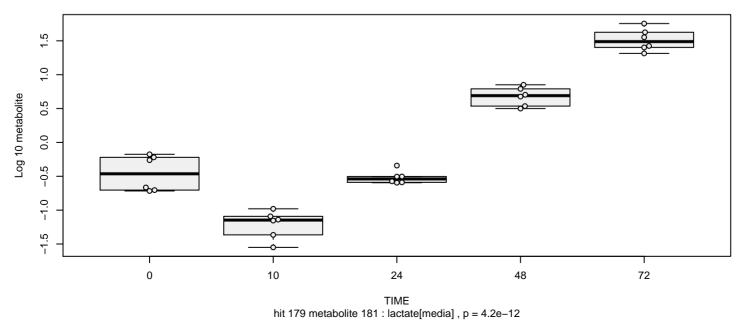
kynurenate[media]



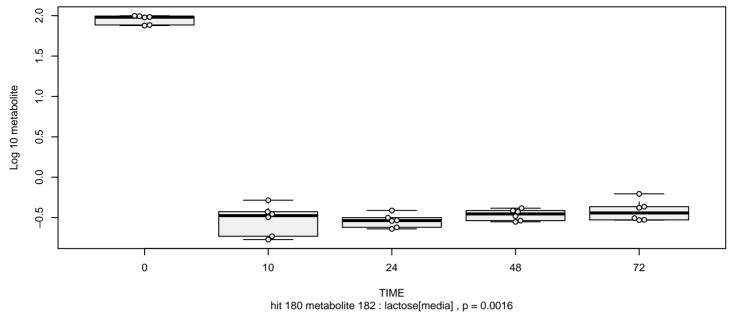
kynurenine[media]



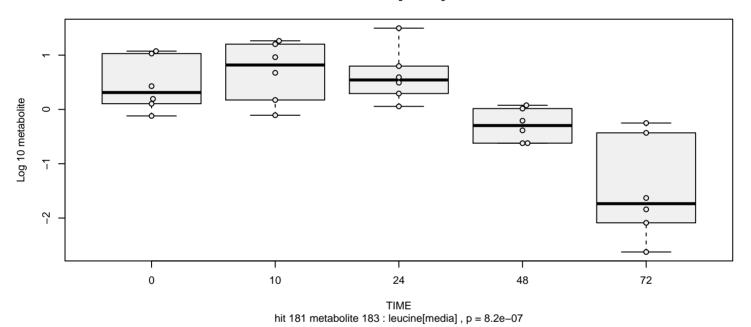
lactate[media]



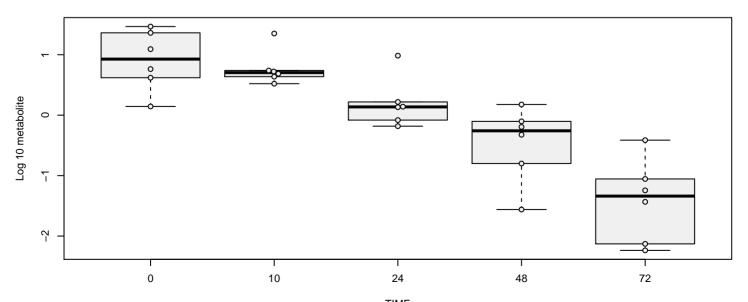
lactose[media]



leucine[media]

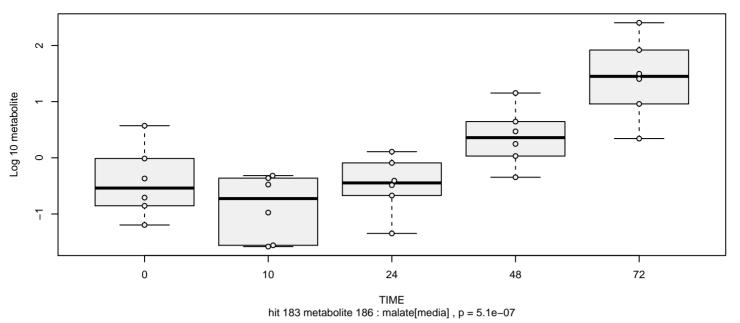


lysine[media]

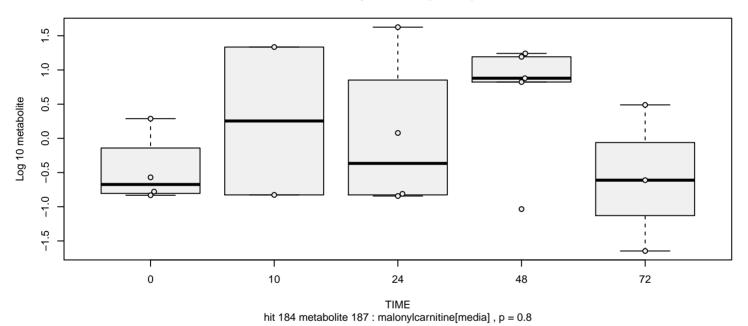


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 182 metabolite 185 : lysine[media] , p = 4e-10} \end{split}$$

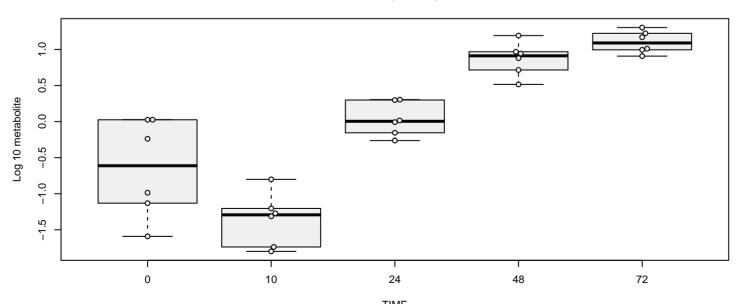
malate[media]



malonylcarnitine[media]

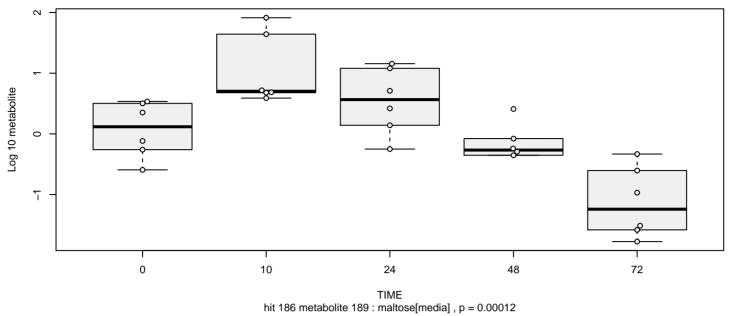


maltol[media]

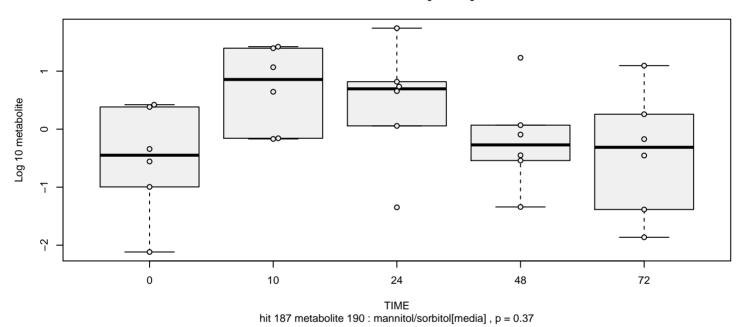


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 185 metabolite 188 : maltol[media] , p = 5.5e-09} \end{split}$$

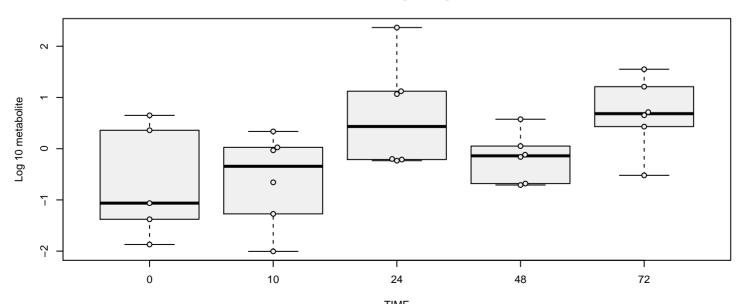
maltose[media]



mannitol/sorbitol[media]

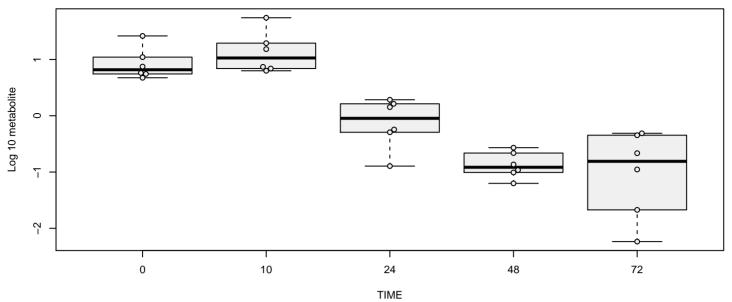


mannose[media]



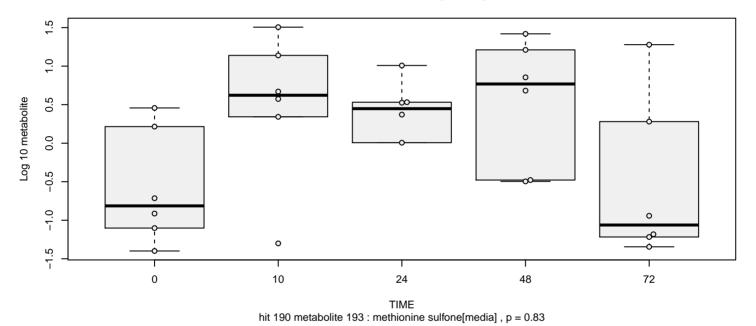
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 188 metabolite 191 : mannose[media] , p = 0.03} \end{split}$$

methionine[media]

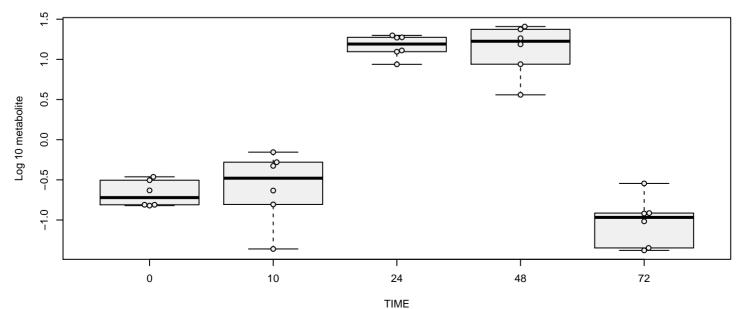


hit 189 metabolite 192 : methionine[media], p = 5.4e-09

methionine sulfone[media]

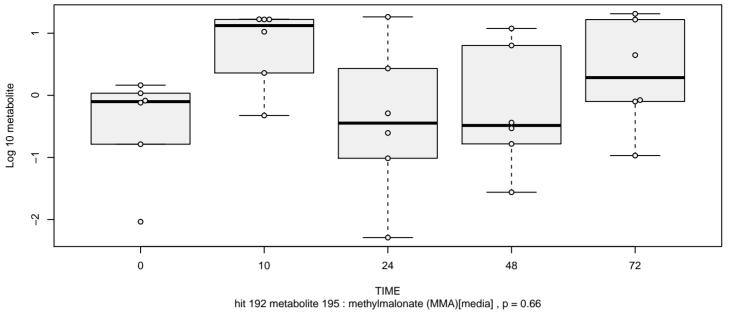


methionine sulfoxide[media]

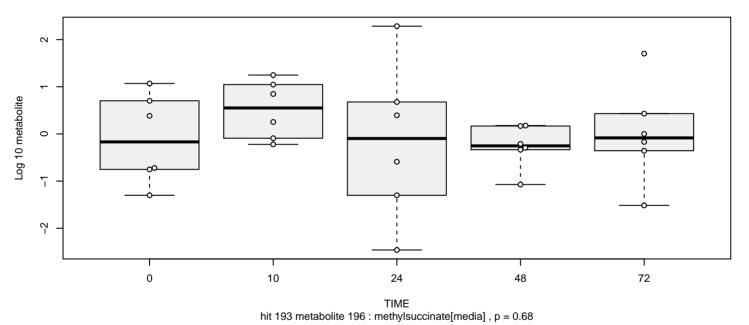


hit 191 metabolite 194 : methionine sulfoxide[media] , p = 0.92

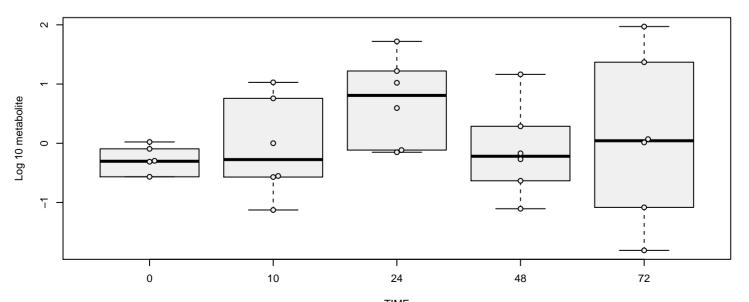
methylmalonate (MMA)[media]



methylsuccinate[media]

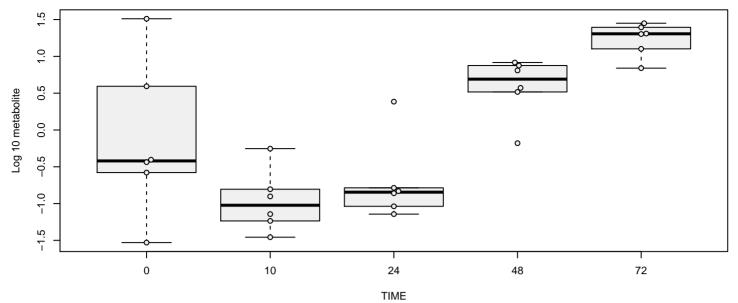


myo-inositol[media]



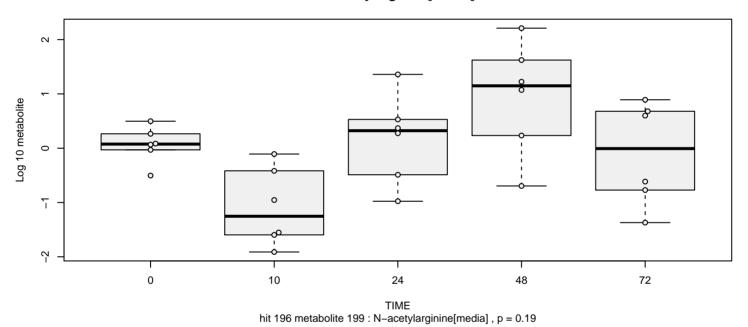
 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 194 metabolite 197 : myo-inositol[media] , p = 0.49 \\ \mbox{}$

N-acetylalanine[media]

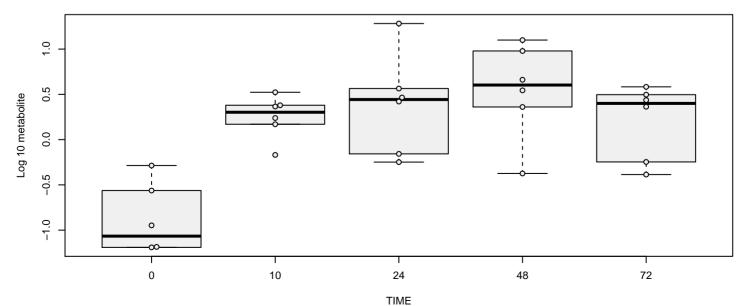


hit 195 metabolite 198 : N-acetylalanine[media] , p = 1.6e-05

N-acetylarginine[media]

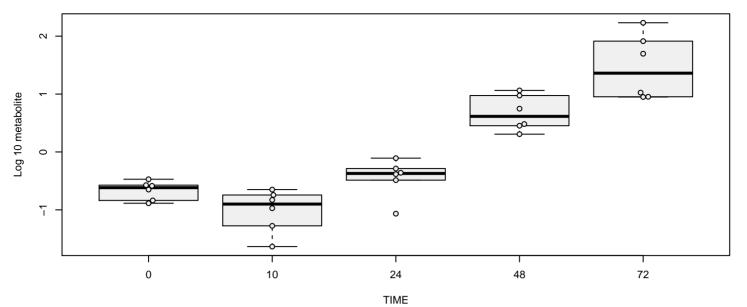


N-acetylasparagine[media]



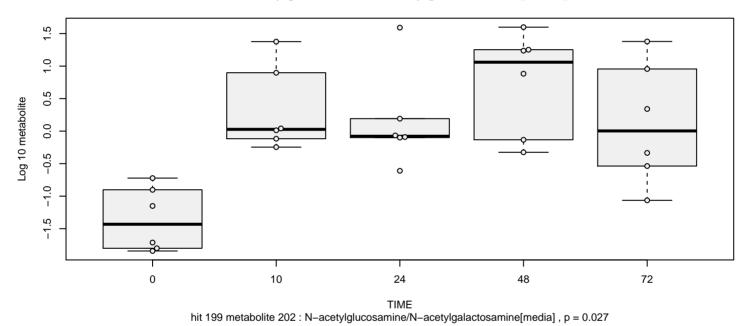
hit 197 metabolite 200 : N-acetylasparagine[media] , p = 0.024

N-acetylaspartate (NAA)[media]

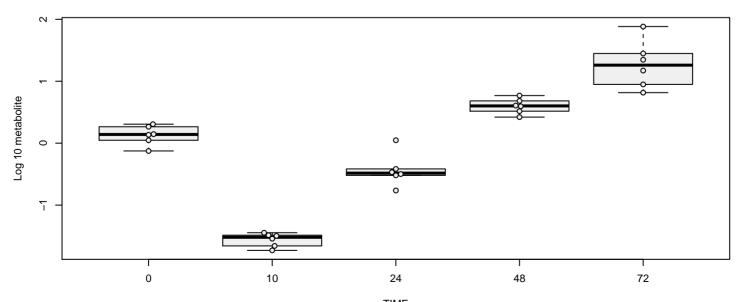


hit 198 metabolite 201 : N-acetylaspartate (NAA)[media] , p = 5.6e-12

N-acetylglucosamine/N-acetylgalactosamine[media]

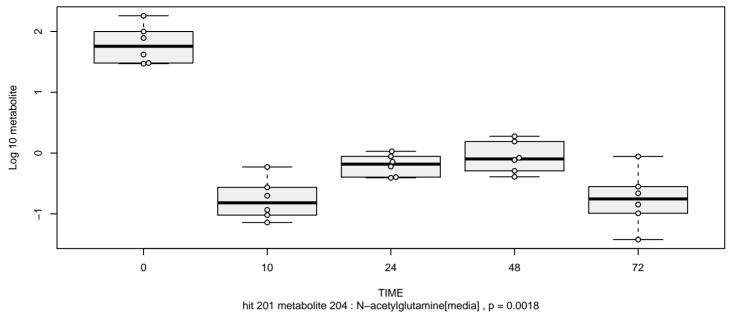


N-acetylglutamate[media]

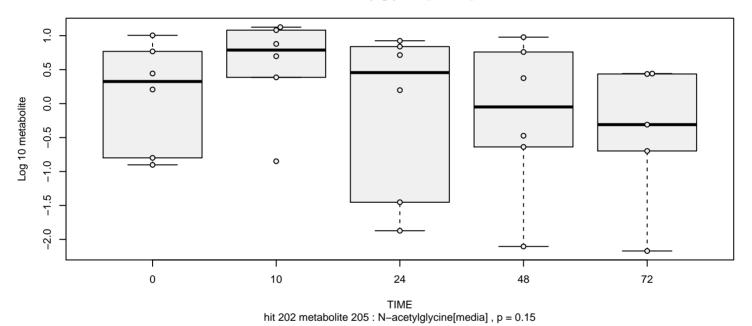


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 200 metabolite 203: N-acetylglutamate[media] , p = 4.4e-06} \end{split}$$

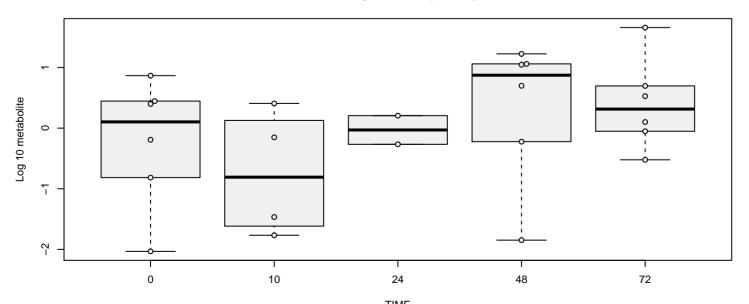
N-acetylglutamine[media]



N-acetylglycine[media]

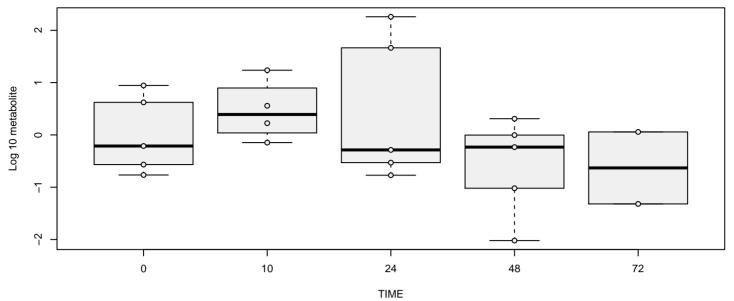


N-acetylhistidine[media]



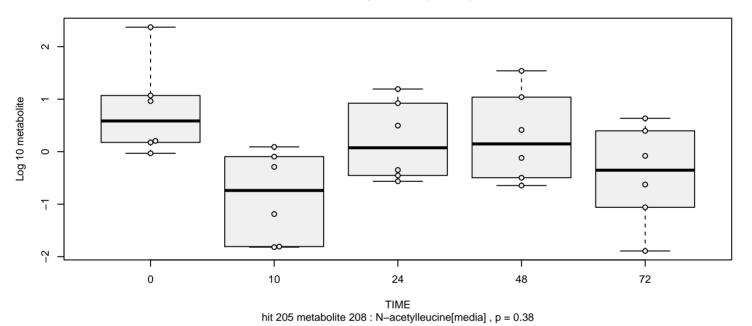
 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 203 metabolite 206 : N-acetylhistidine[media] , p = 0.089 \\ \mbox{}$

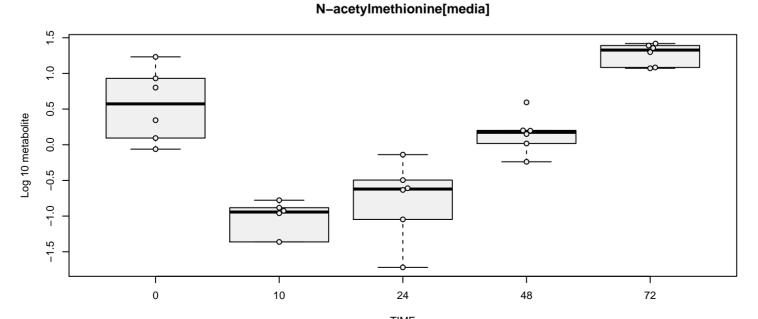
N-acetylisoleucine[media]



hit 204 metabolite 207 : N-acetylisoleucine[media] , p = 0.14

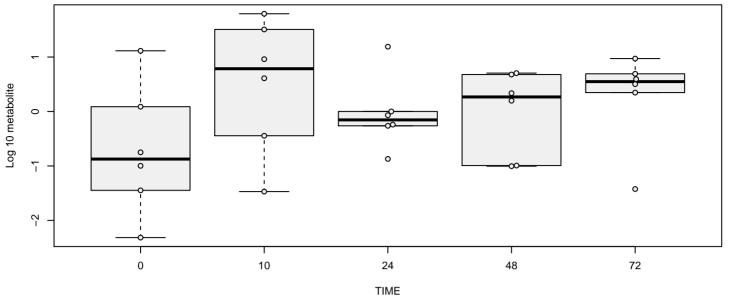
N-acetylleucine[media]





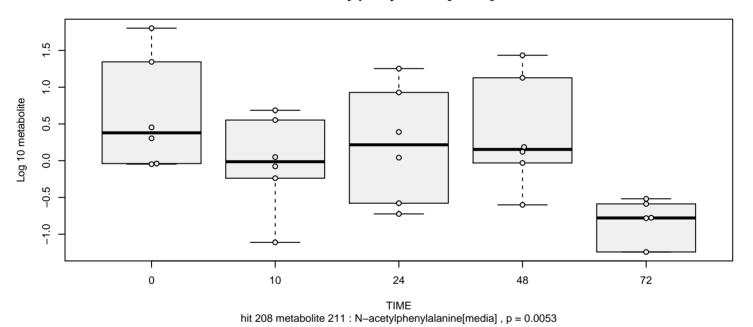
 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 206 metabolite 209 : N-acetylmethionine[media] , $p = 0.0026$} \\$

N-acetylneuraminate[media]

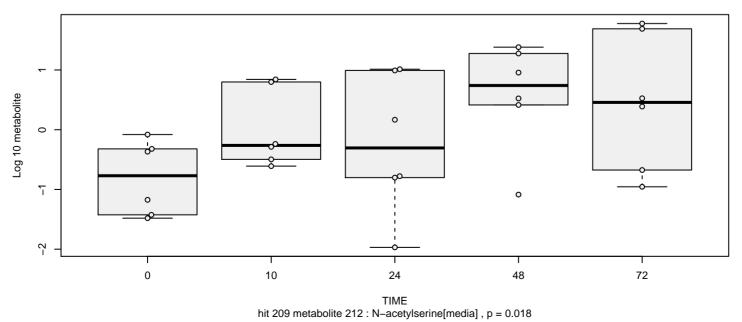


hit 207 metabolite 210 : N-acetylneuraminate[media] , p = 0.33

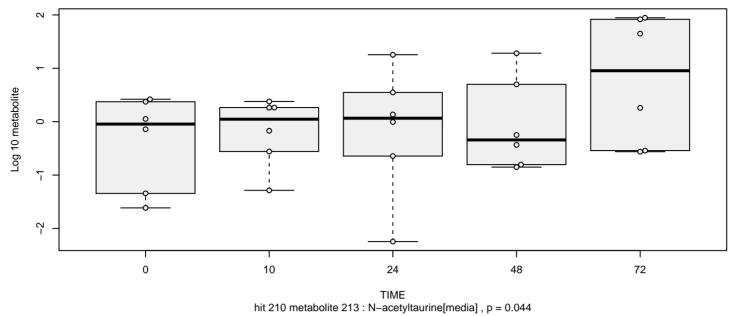
N-acetylphenylalanine[media]



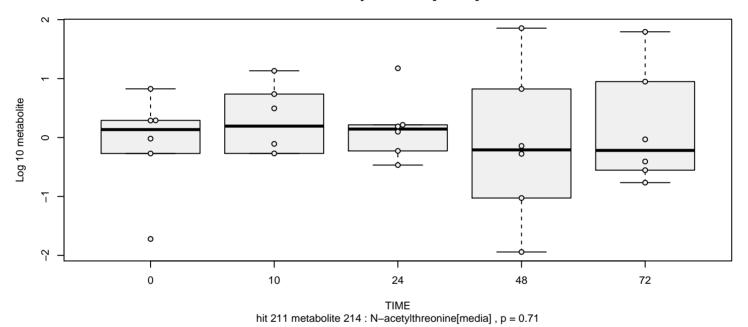
N-acetylserine[media]



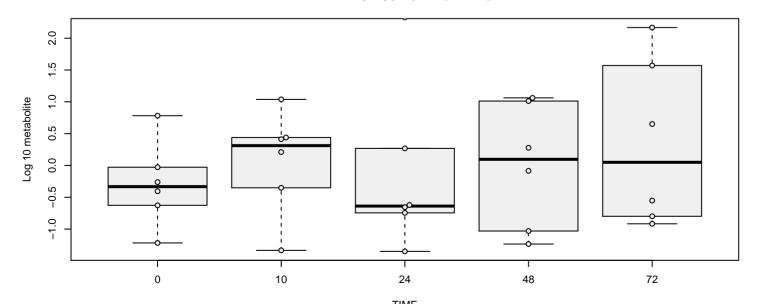
N-acetyltaurine[media]



N-acetylthreonine[media]

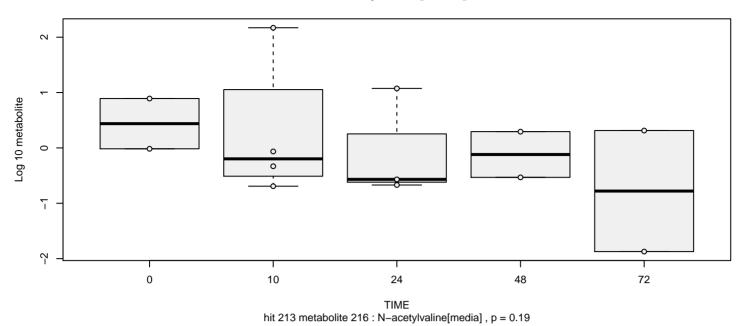


N-acetyltryptophan[media]

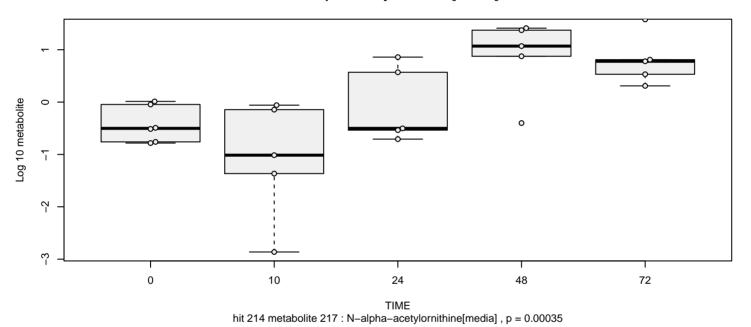


 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 212 metabolite 215 : N-acetyltryptophan[media] , $p = 0.34$} \\$

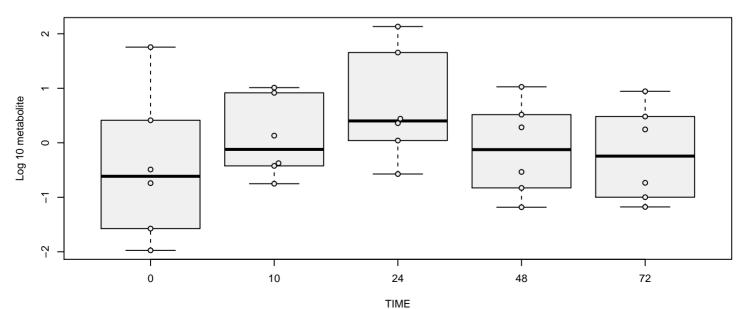
N-acetylvaline[media]



N-alpha-acetylornithine[media]

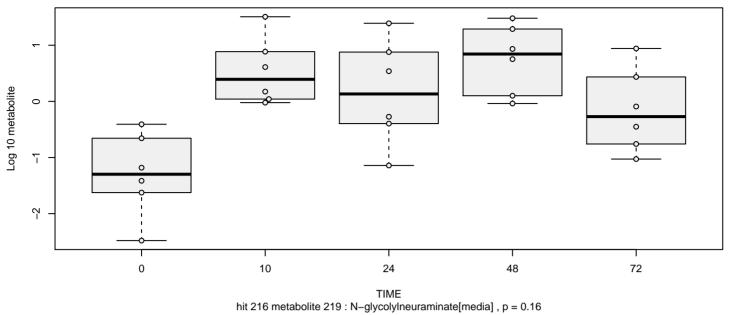


N-delta-acetylornithine[media]

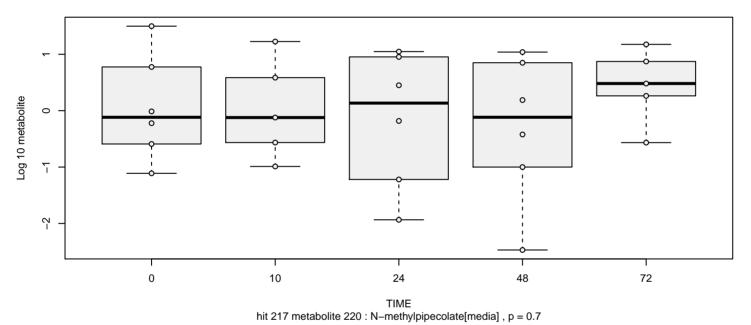


hit 215 metabolite 218 : N-delta-acetylornithine[media] , p = 0.89

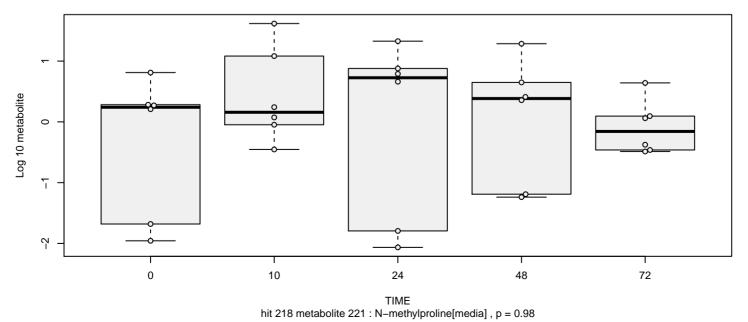
N-glycolylneuraminate[media]



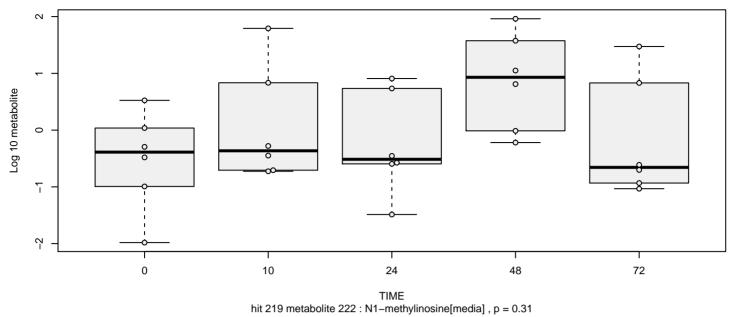
N-methylpipecolate[media]



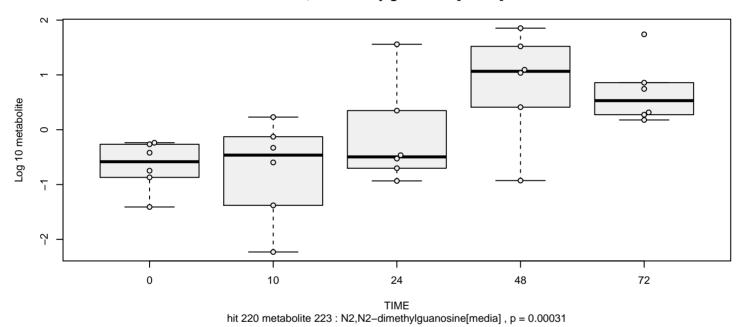
N-methylproline[media]



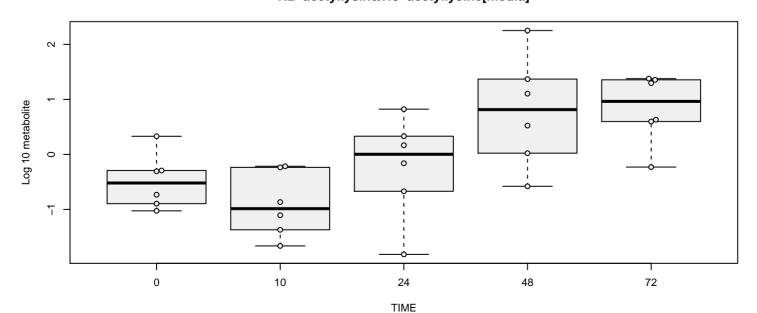
N1-methylinosine[media]



N2,N2-dimethylguanosine[media]

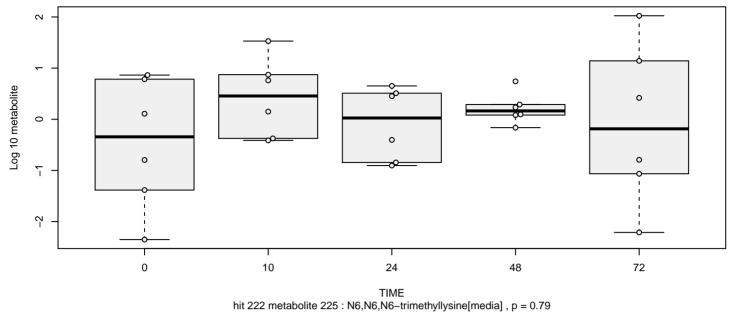


N2-acetyllysine/N6-acetyllysine[media]

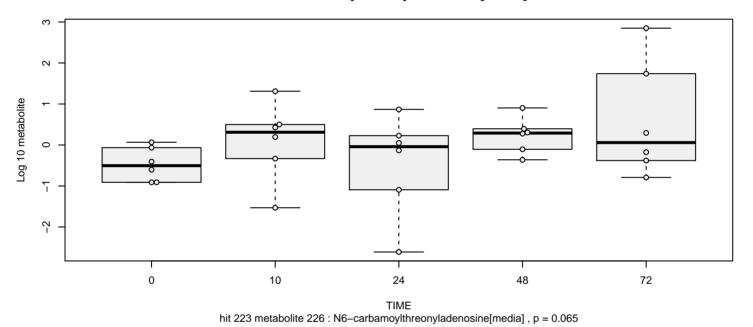


hit 221 metabolite 224 : N2-acetyllysine/N6-acetyllysine[media] , p = 0.00011

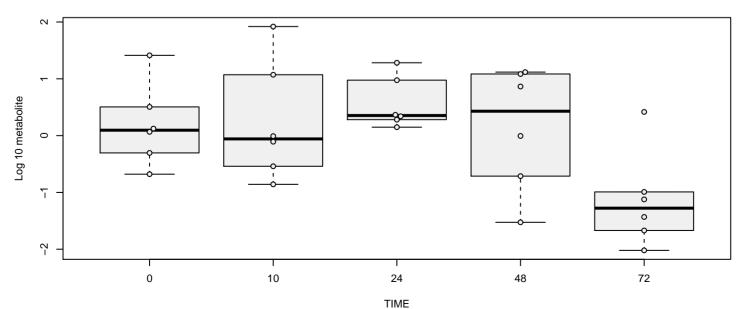
N6,N6,N6-trimethyllysine[media]



N6-carbamoylthreonyladenosine[media]

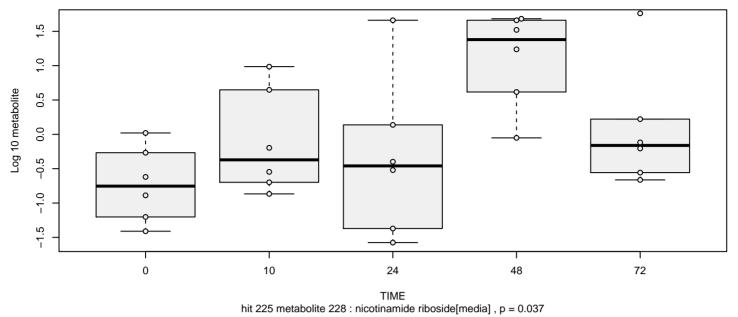


nicotinamide[media]

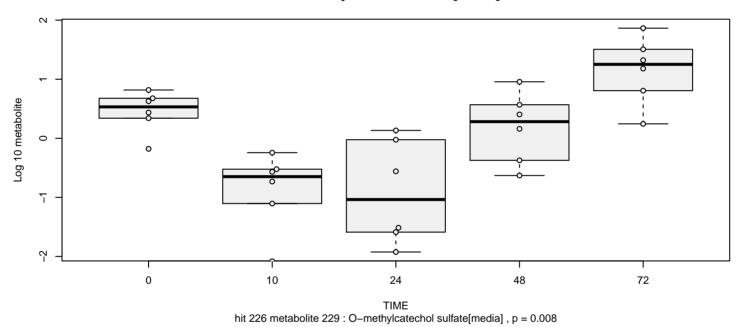


hit 224 metabolite 227 : nicotinamide[media] , p = 0.01

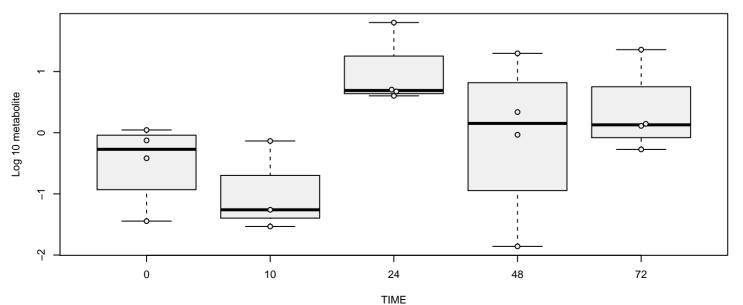
nicotinamide riboside[media]



O-methylcatechol sulfate[media]

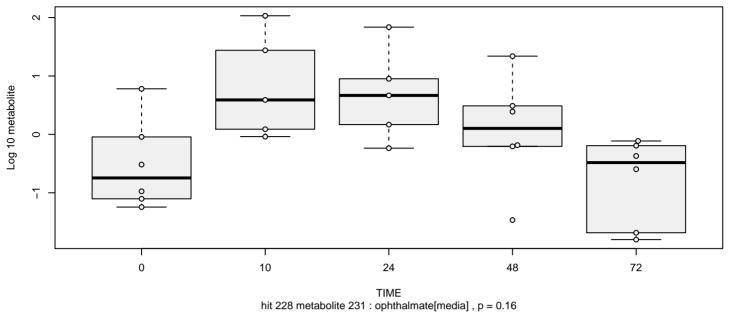


octanoylcarnitine[media]

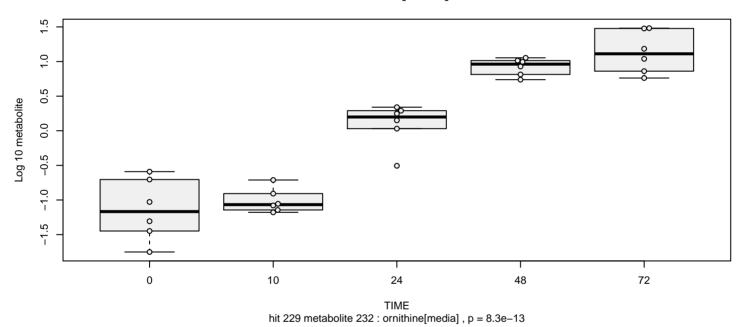


hit 227 metabolite 230 : octanoylcarnitine[media] , p = 0.21

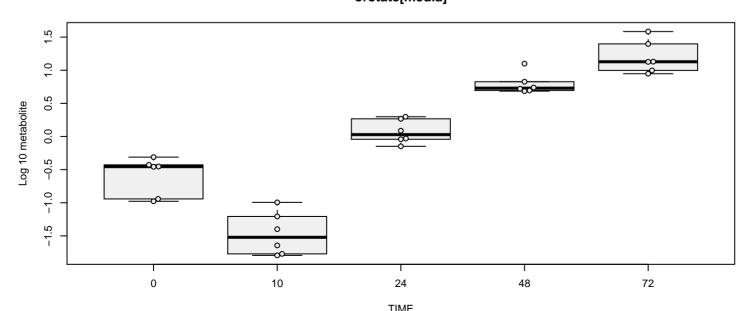
ophthalmate[media]



ornithine[media]

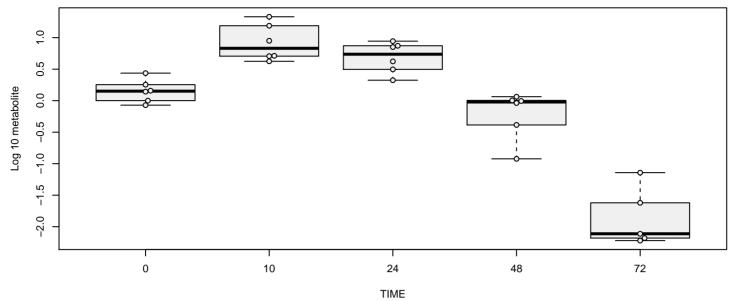


orotate[media]



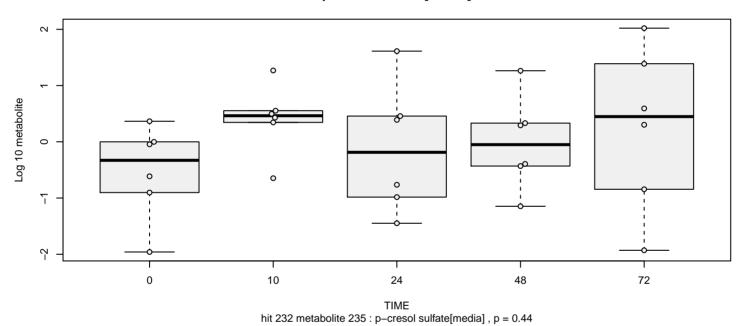
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 230 metabolite 233 : orotate[media] , p = 6.4e-10} \end{split}$$

p-aminobenzoate (PABA)[media]

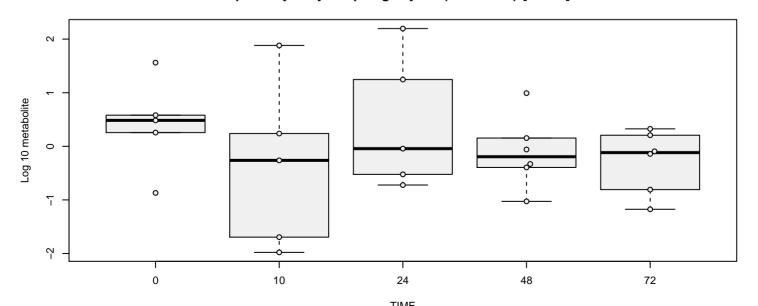


hit 231 metabolite 234 : p-aminobenzoate (PABA)[media] , p = 2.8e-07

p-cresol sulfate[media]

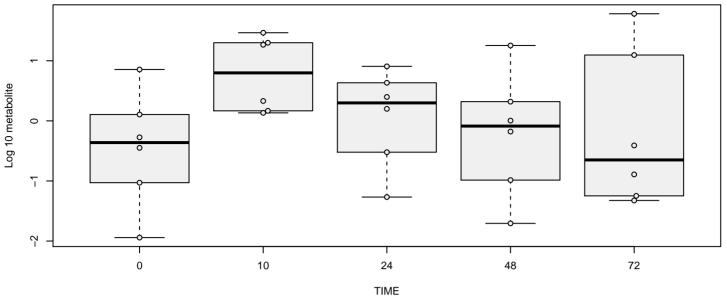


palmitoyl dihydrosphingomyelin (d18:0/16:0)*[media]



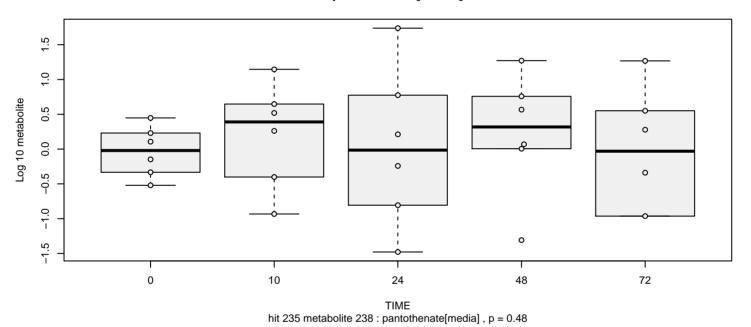
 $\label{eq:TIME} TIME \\ \mbox{hit 233 metabolite 236: palmitoyl dihydrosphingomyelin (d18:0/16:0)*[media] , p = 0.4 \\ \mbox{}$

palmitoyl sphingomyelin (d18:1/16:0)[media]

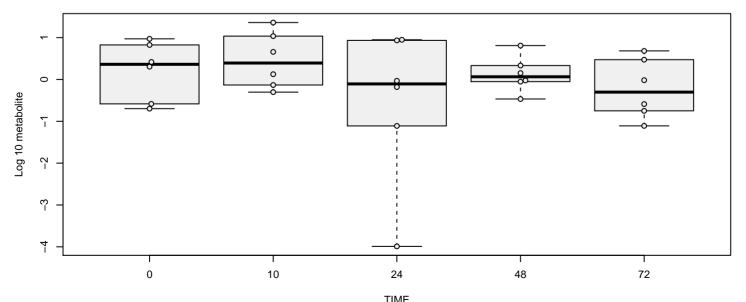


hit 234 metabolite 237 : palmitoyl sphingomyelin (d18:1/16:0)[media] , p = 0.59

pantothenate[media]

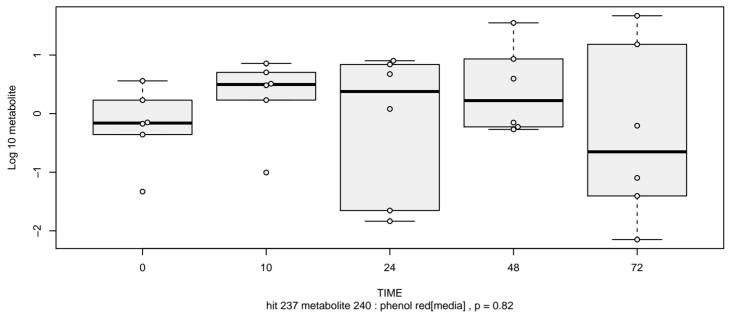


penicillin G[media]

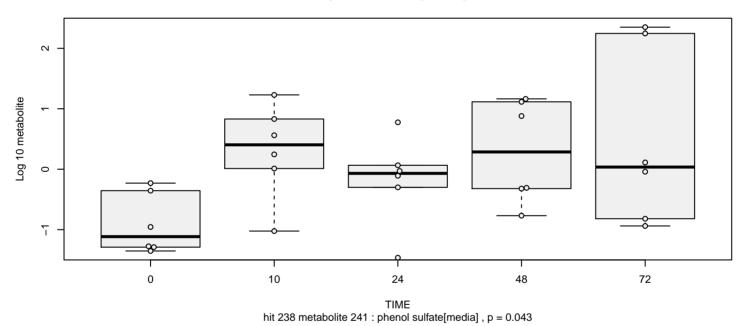


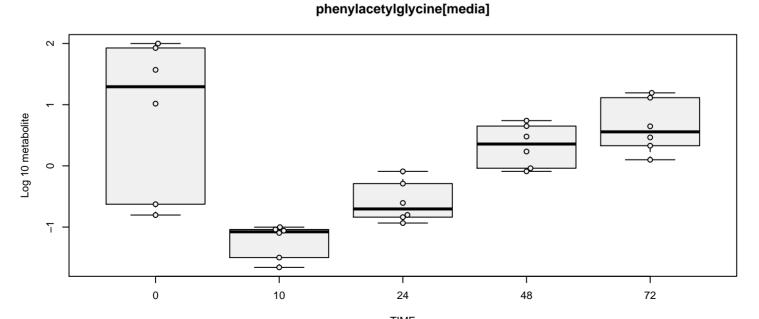
 $\label{eq:TIME} \mbox{hit 236 metabolite 239 : penicillin G[media] , p = 0.44}$

phenol red[media]



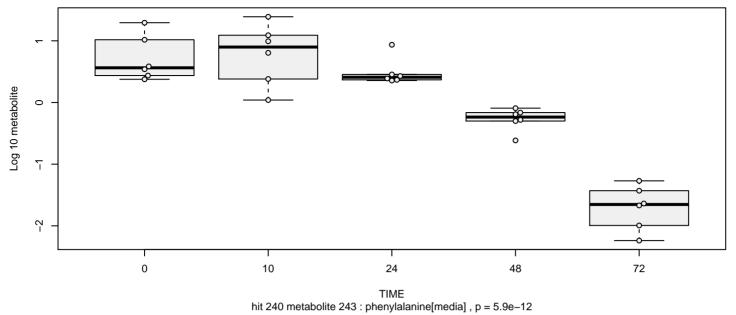
phenol sulfate[media]



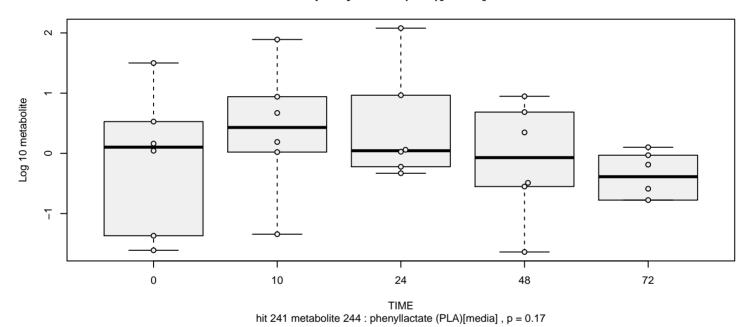


 $\label{eq:TIME} \mbox{TIME} $$ \mbox{hit 239 metabolite 242 : phenylacetylglycine[media] , p = 0.14 $$ }$

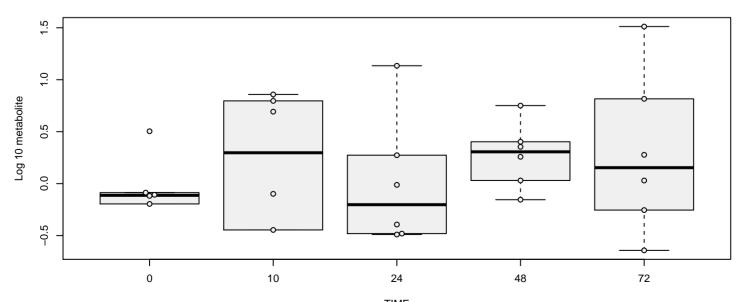
phenylalanine[media]



phenyllactate (PLA)[media]

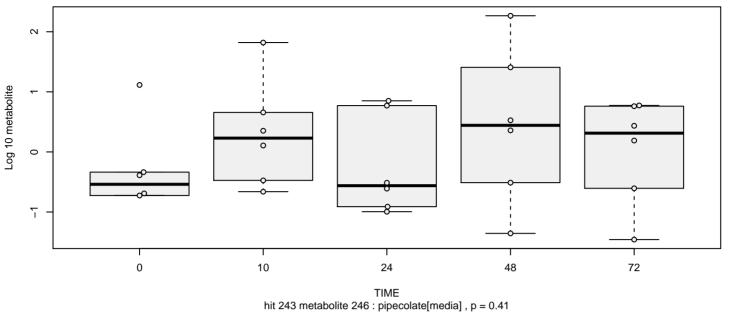


phosphate[media]

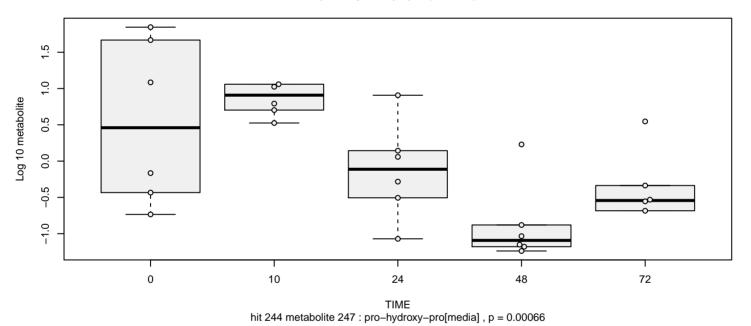


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 242 metabolite 245 : phosphate[media] , p = 0.22} \end{split}$$

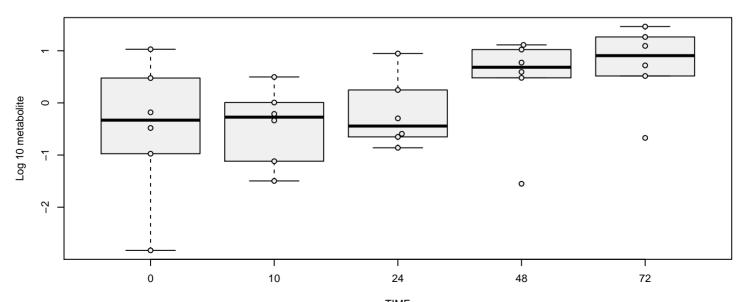
pipecolate[media]



pro-hydroxy-pro[media]

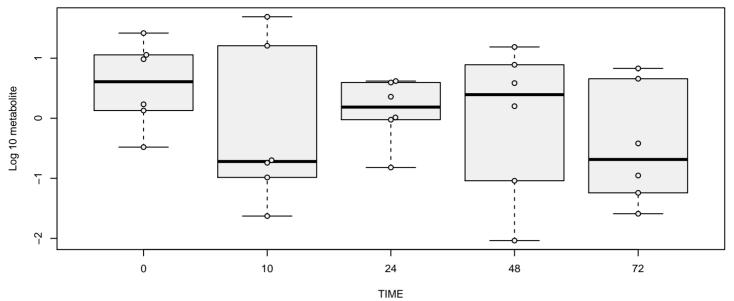


proline[media]



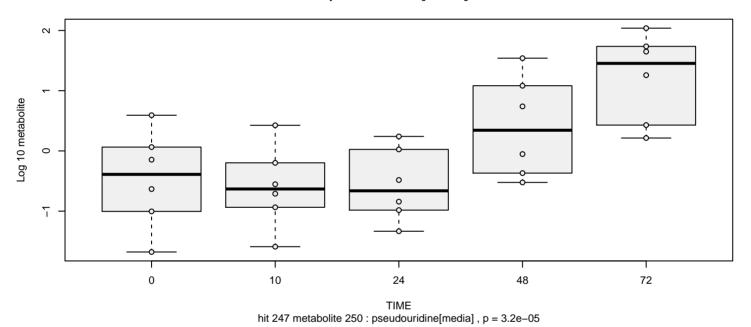
$$\label{eq:TIME} \begin{split} &\text{TIME}\\ &\text{hit 245 metabolite 248 : proline[media] , } p = 0.0061 \end{split}$$

propionylcarnitine[media]

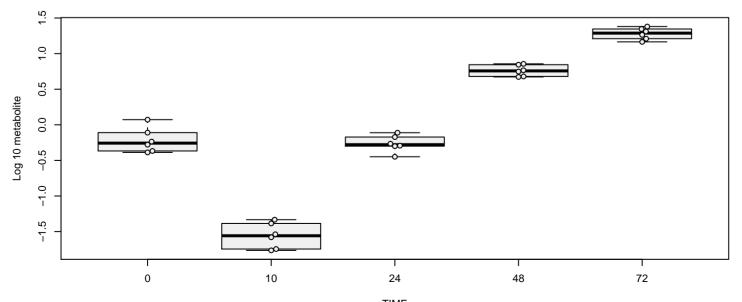


hit 246 metabolite 249 : propionylcarnitine[media] , p = 0.17

pseudouridine[media]

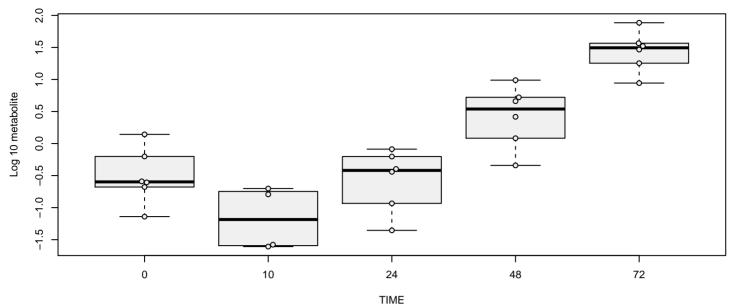


pyridoxal[media]



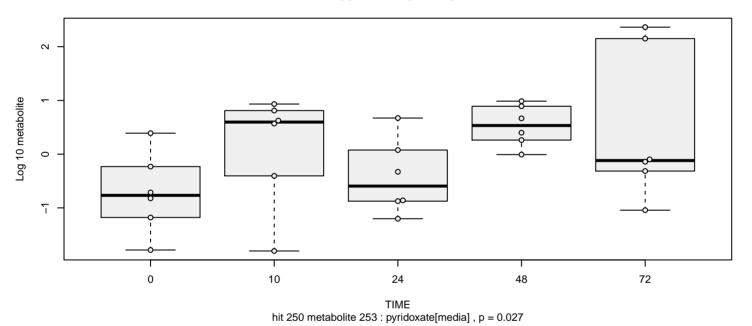
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 248 metabolite 251 : pyridoxal[media] , p = 1.4e-08} \end{split}$$

pyridoxamine[media]

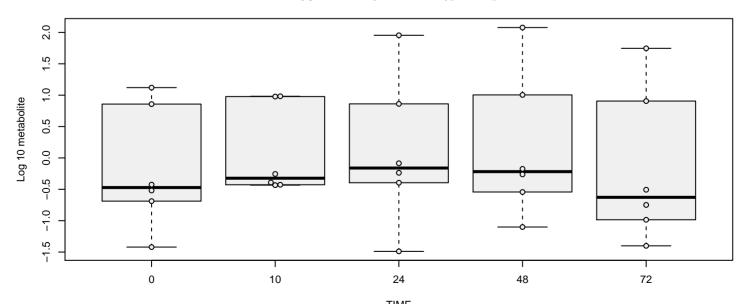


hit 249 metabolite 252 : pyridoxamine[media], p = 1.6e-08

pyridoxate[media]

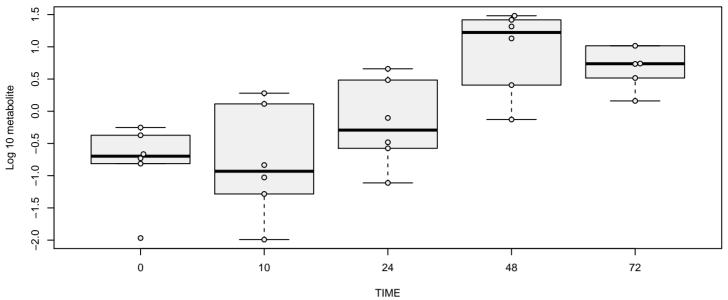


pyridoxine (Vitamin B6)[media]



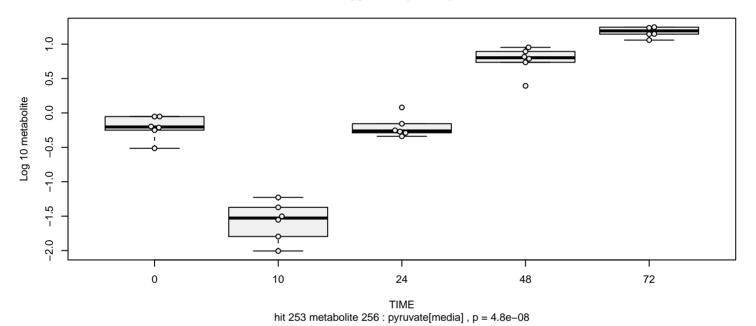
 $\label{eq:TIME} \mbox{hit 251 metabolite 254: pyridoxine (Vitamin B6)[media] , p = 0.98}$

pyroglutamine*[media]

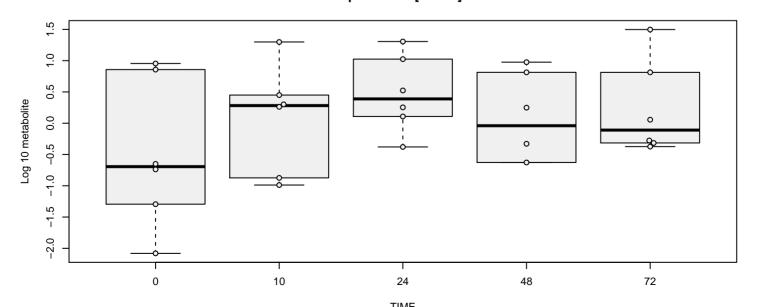


hit 252 metabolite 255 : pyroglutamine*[media] , p = 6e-06

pyruvate[media]

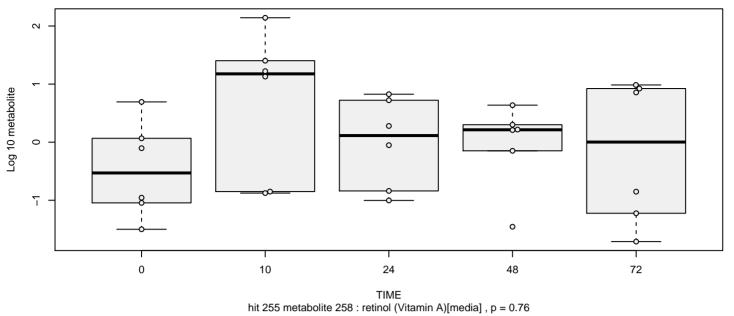


quinolinate[media]

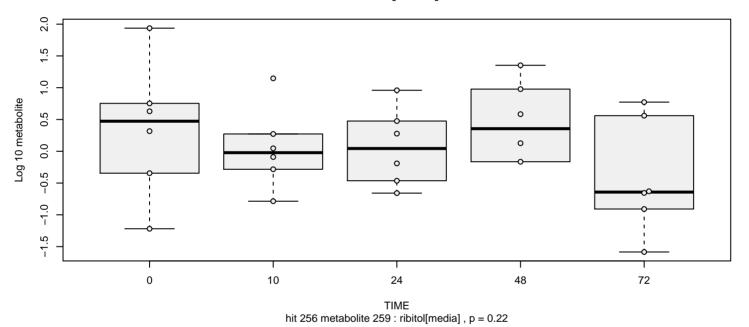


TIME hit 254 metabolite 257 : quinolinate[media] , p = 0.54

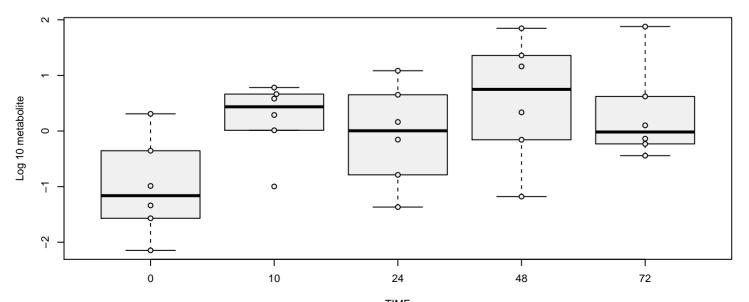
retinol (Vitamin A)[media]



ribitol[media]

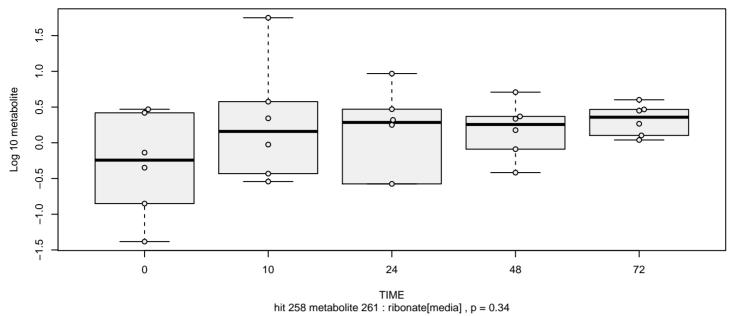


riboflavin (Vitamin B2)[media]

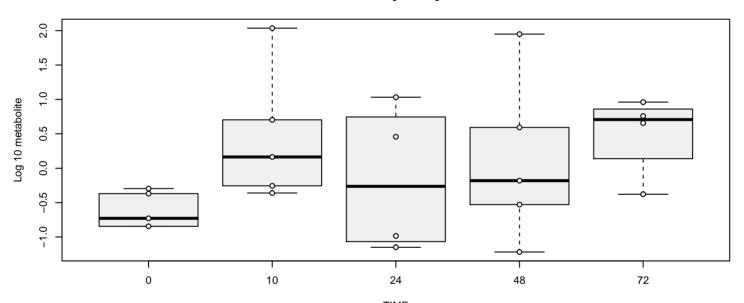


 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 257 metabolite 260 : riboflavin (Vitamin B2)[media] , p = 0.038 \\ \mbox{}$

ribonate[media]

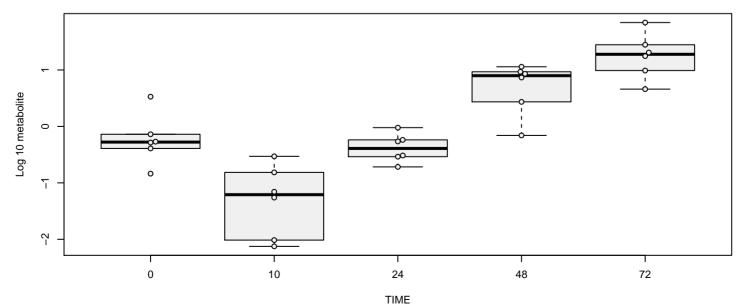


ribose[media]



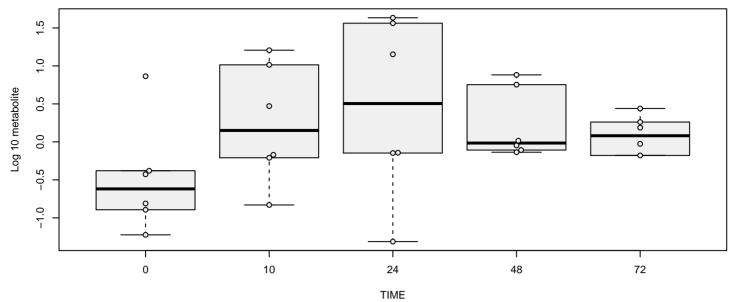
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 259 metabolite 262 : ribose[media] , p = 0.15} \end{split}$$

S-1-pyrroline-5-carboxylate[media]



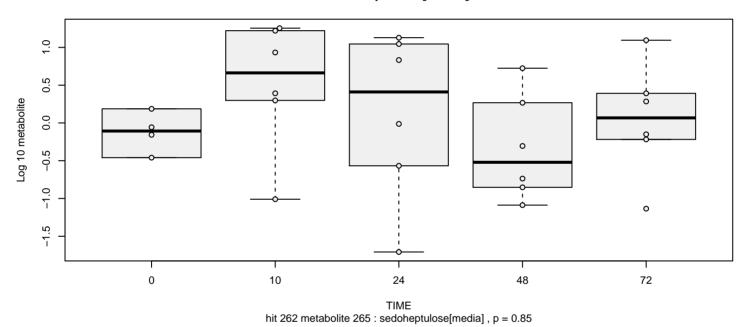
hit 260 metabolite 263 : S-1-pyrroline-5-carboxylate[media] , p = 3.6e-07

S-methylcysteine[media]

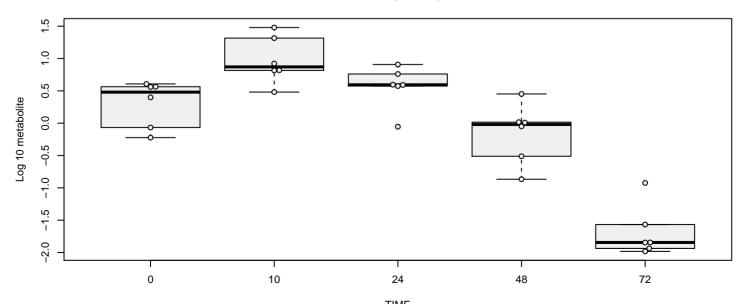


hit 261 metabolite 264 : S-methylcysteine[media] , p = 0.73

sedoheptulose[media]

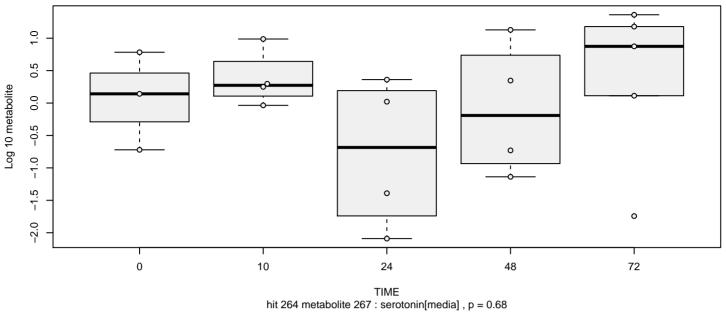


serine[media]

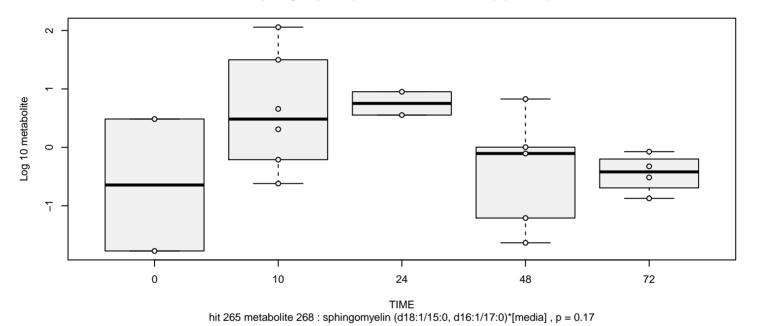


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 263 metabolite 266 : serine[media] , p = 2.8e-08} \end{split}$$

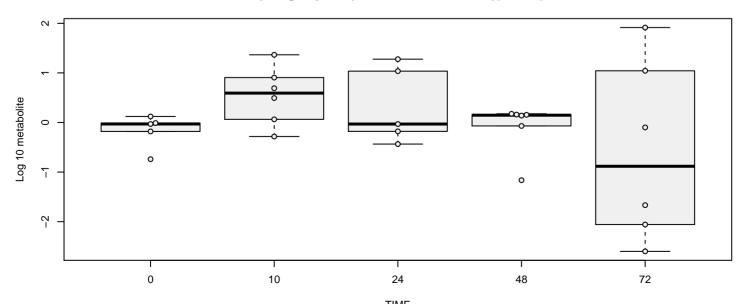
serotonin[media]



sphingomyelin (d18:1/15:0, d16:1/17:0)*[media]

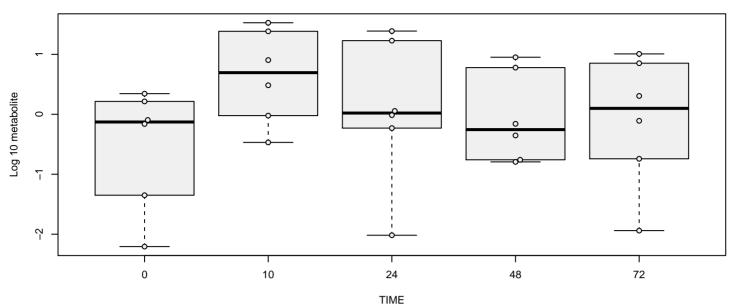


sphingomyelin (d18:1/18:1, d18:2/18:0)[media]



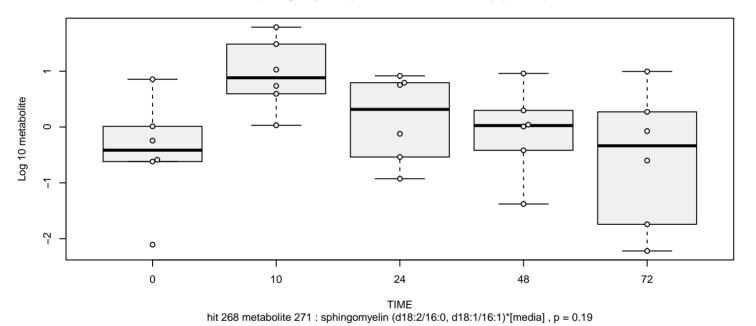
 $\label{eq:TIME} \mbox{TIME} $$ \mbox{hit 266 metabolite 269 : sphingomyelin (d18:1/18:1, d18:2/18:0)[media] , p = 0.14 $$ \mbox{}$

sphingomyelin (d18:1/24:1, d18:2/24:0)*[media]

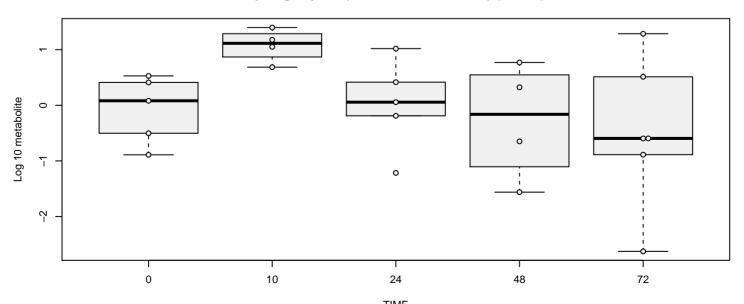


hit 267 metabolite 270 : sphingomyelin (d18:1/24:1, d18:2/24:0)*[media] , p = 0.93

sphingomyelin (d18:2/16:0, d18:1/16:1)*[media]

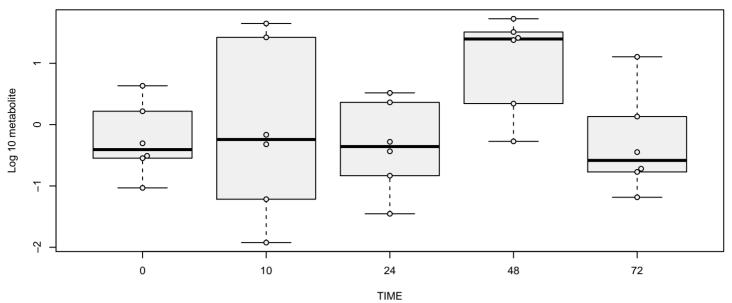


sphingomyelin (d18:2/24:1, d18:1/24:2)*[media]



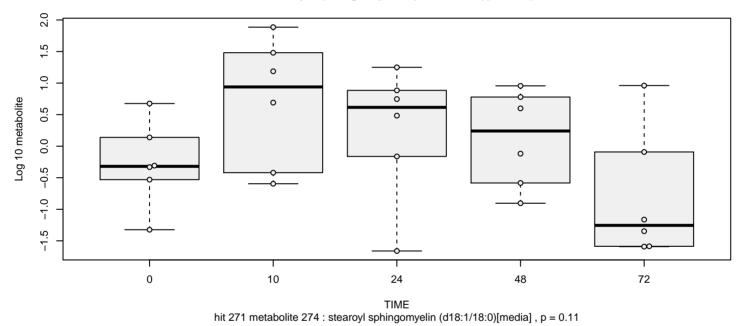
 $\label{eq:TIME} \mbox{TIME} $$ \mbox{hit 269 metabolite 272 : sphingomyelin (d18:2/24:1, d18:1/24:2)*[media] , p = 0.11 $$ $$ \mbox{or only the property of the property of$

stachydrine[media]

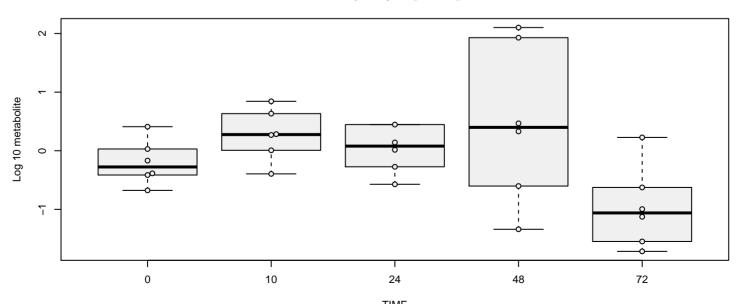


hit 270 metabolite 273 : stachydrine[media] , p = 0.49

stearoyl sphingomyelin (d18:1/18:0)[media]

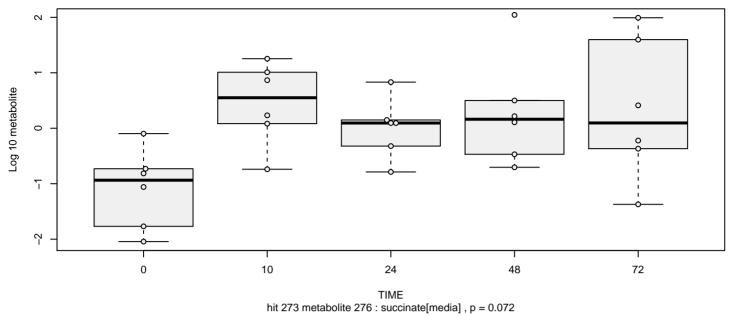


streptomycin[media]

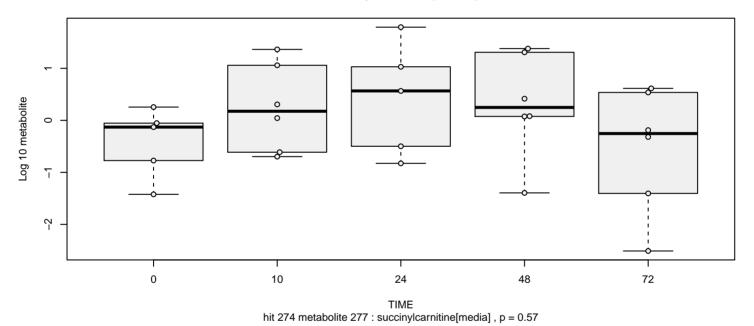


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 272 metabolite 275 : streptomycin[media] , p = 0.16} \end{split}$$

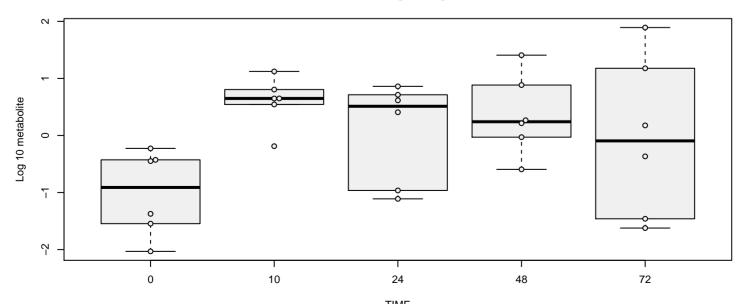
succinate[media]



succinylcarnitine[media]

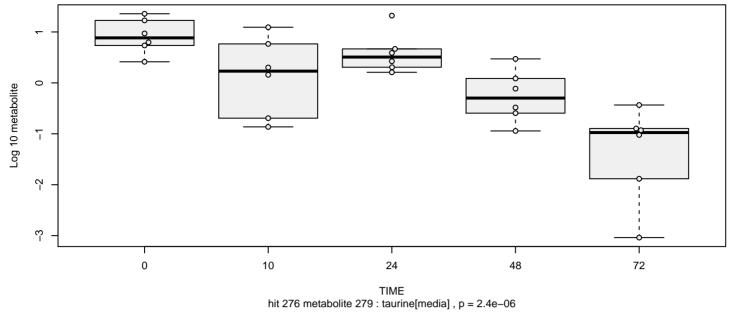


sulfate*[media]

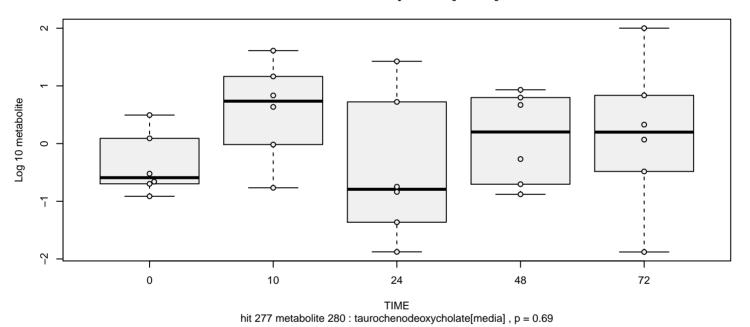


 $\label{eq:time} \begin{array}{c} \text{TIME} \\ \text{hit 275 metabolite 278 : sulfate*[media] , p = 0.35} \end{array}$

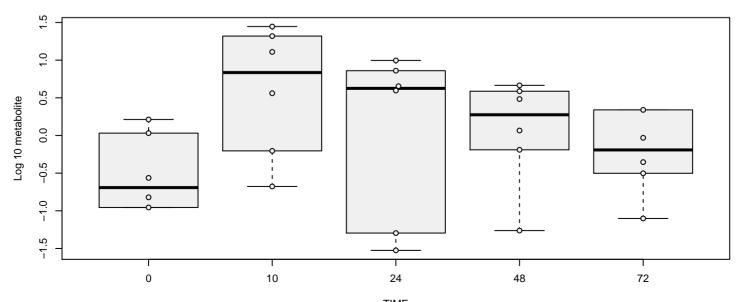
taurine[media]



taurochenodeoxycholate[media]

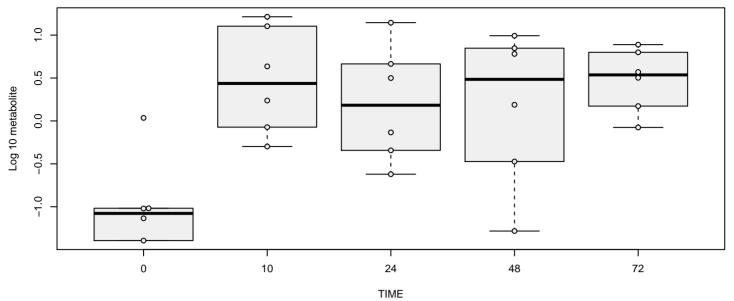


taurocholate[media]



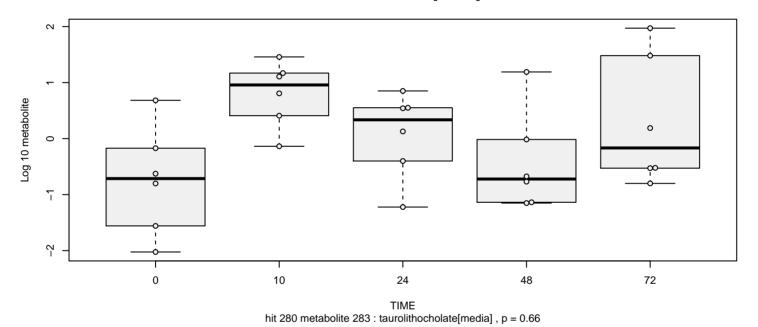
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 278 metabolite 281 : taurocholate[media] , p = 0.55} \end{split}$$

taurodeoxycholate[media]

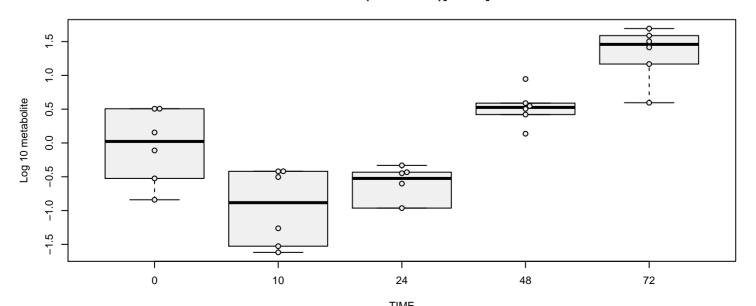


hit 279 metabolite 282 : taurodeoxycholate[media] , p = 0.026

taurolithocholate[media]

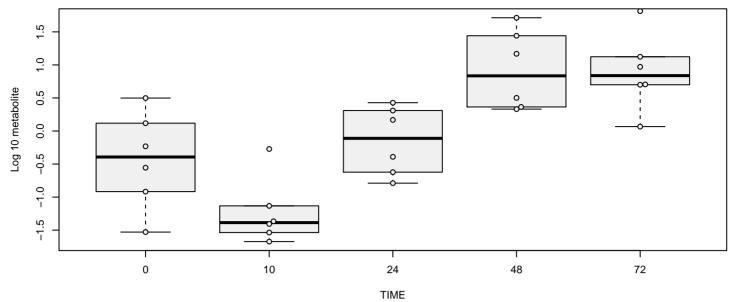


thiamin (Vitamin B1)[media]



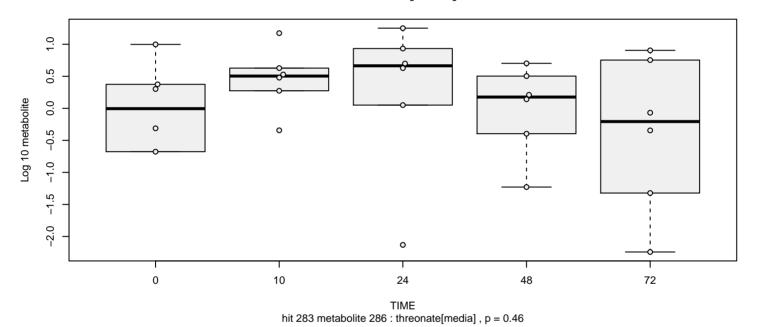
 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 281 metabolite 284 : thiamin (Vitamin B1)[media] , p = 1.3e-05 \\ \mbox{}$

thioproline[media]

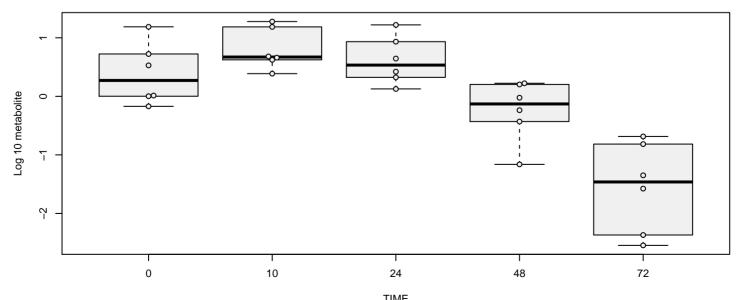


hit 282 metabolite 285 : thioproline[media], p = 6.7e-06

threonate[media]

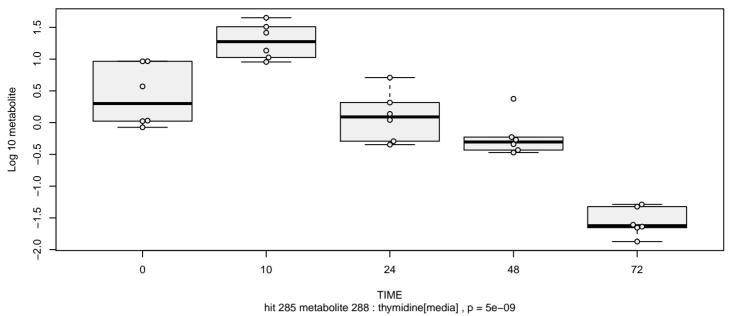


threonine[media]

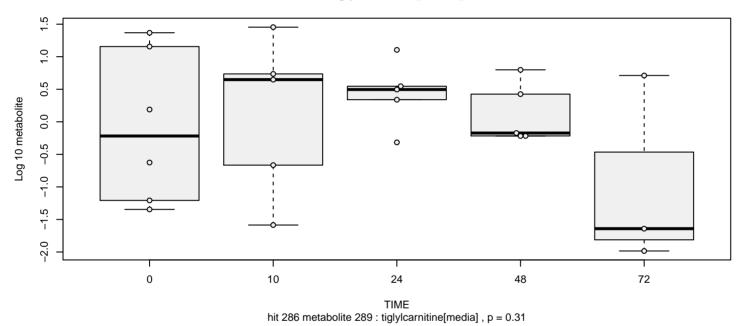


 $\label{eq:TIME} \mbox{hit 284 metabolite 287 : threonine[media] , p = 3e-07}$

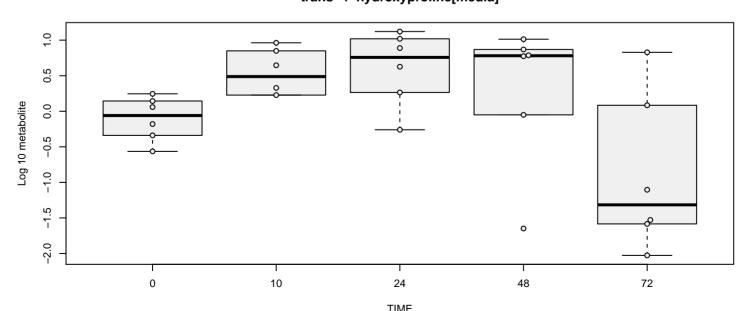
thymidine[media]



tiglylcarnitine[media]

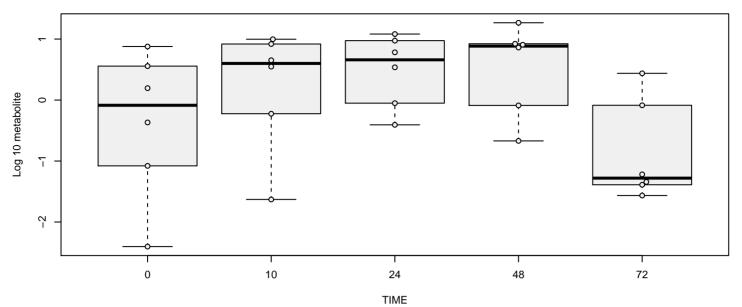


trans-4-hydroxyproline[media]



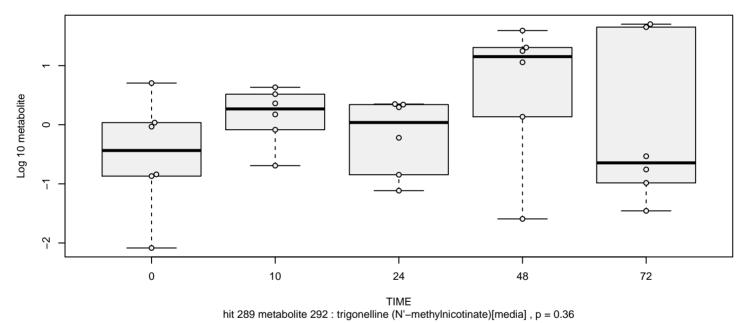
$$\label{eq:time_problem} \begin{split} & \text{TIME} \\ & \text{hit 287 metabolite 290 : trans-4-hydroxyproline[media] , p = 0.15} \end{split}$$

trans-urocanate[media]

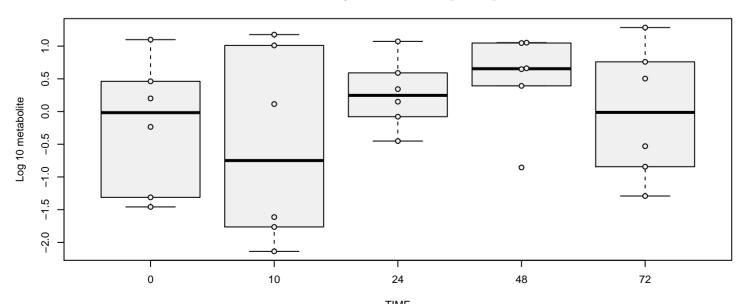


hit 288 metabolite 291 : trans-urocanate[media] , p = 0.35

trigonelline (N'-methylnicotinate)[media]

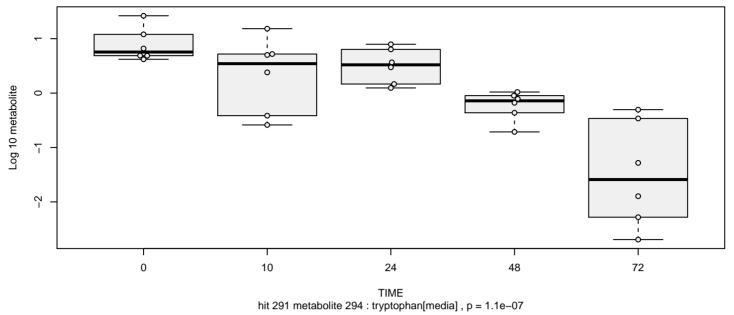


trimethylamine N-oxide[media]

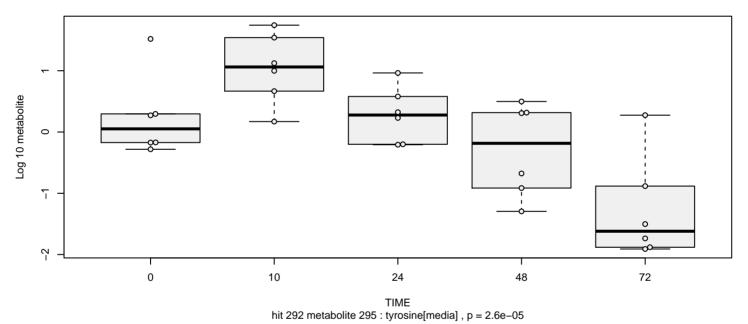


 $\label{eq:TIME} \mbox{TIME} $$ \mbox{hit 290 metabolite 293 : trimethylamine N-oxide[media] , p = 0.34 $$ }$

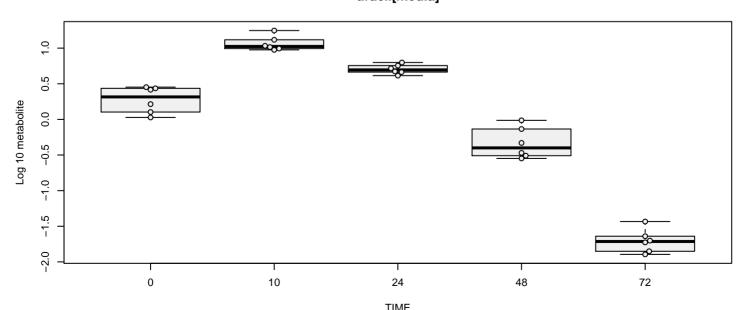
tryptophan[media]



tyrosine[media]

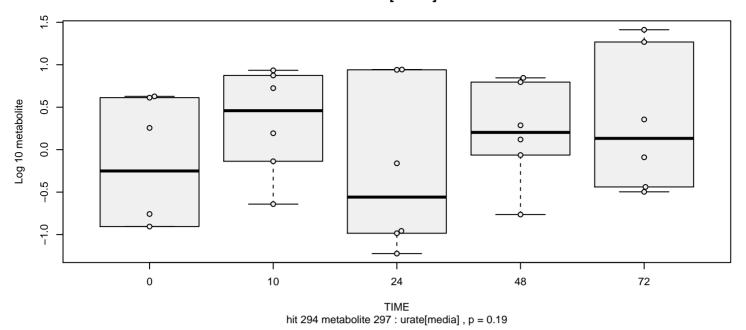


uracil[media]

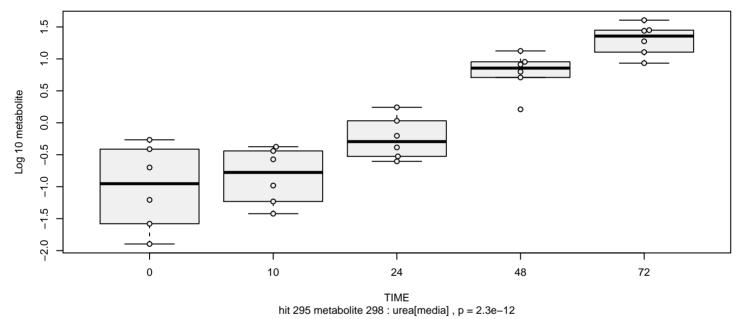


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 293 metabolite 296 : uracil[media] , p = 5.8e-10} \end{split}$$

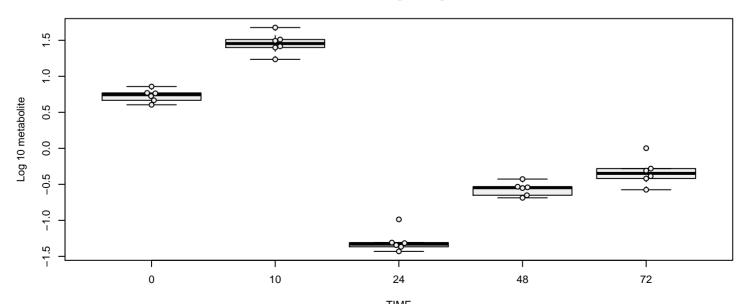
urate[media]



urea[media]

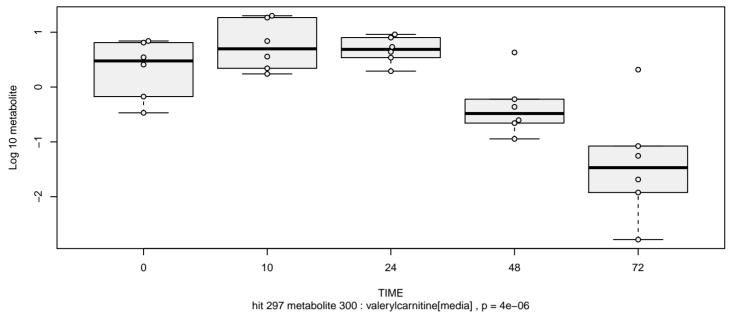


uridine[media]

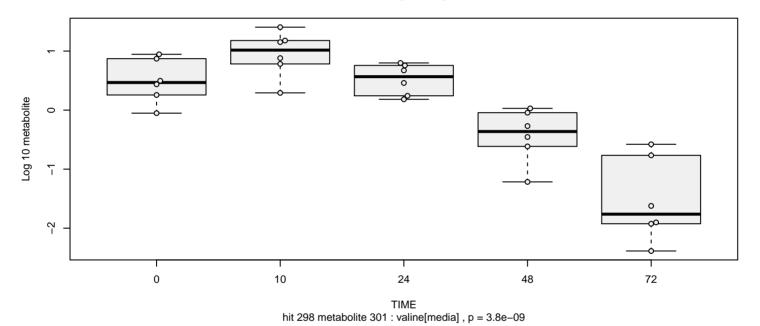


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 296 metabolite 299 : uridine[media] , p = 0.003} \end{split}$$

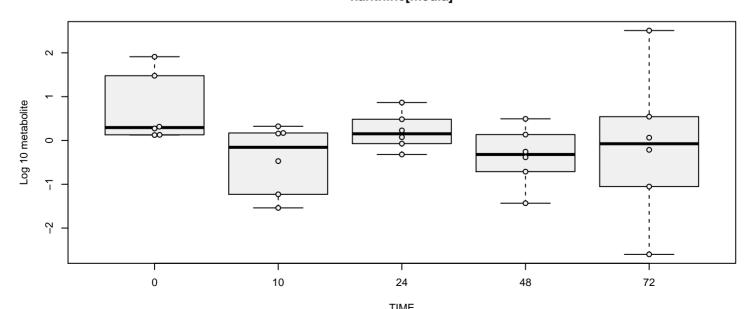
valerylcarnitine[media]



valine[media]

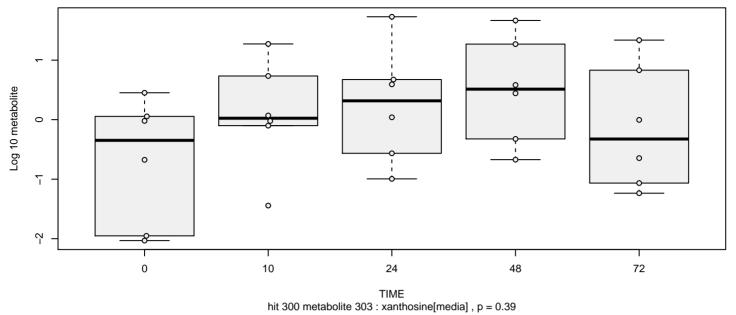


xanthine[media]

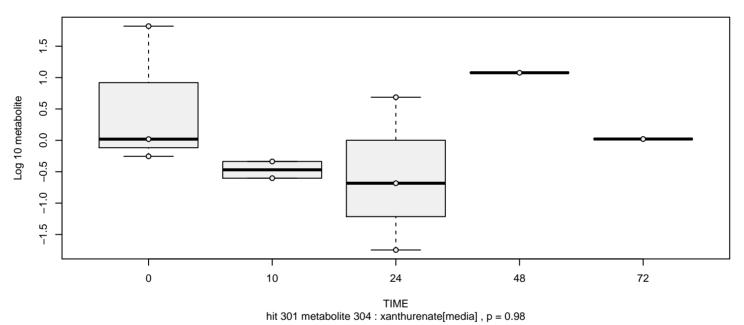


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 299 metabolite 302 : xanthine[media] , p = 0.29} \end{split}$$

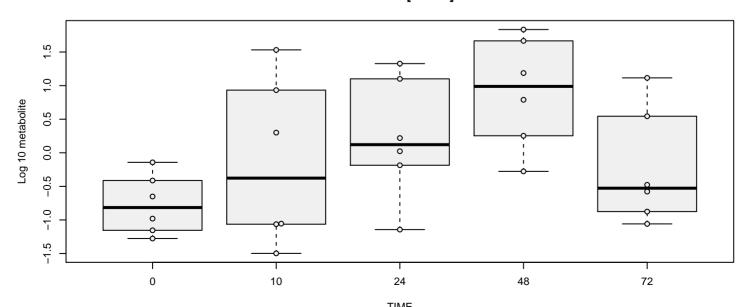
xanthosine[media]



xanthurenate[media]

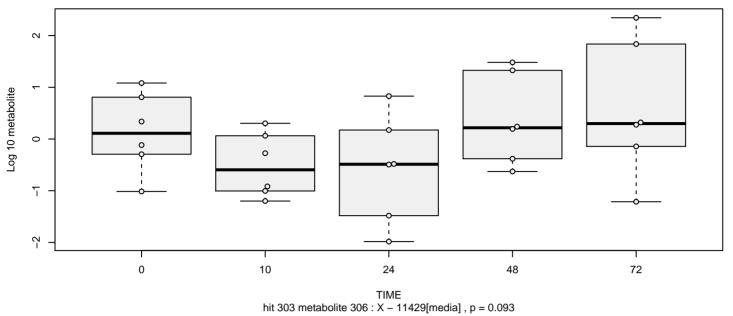


X - 11334[media]

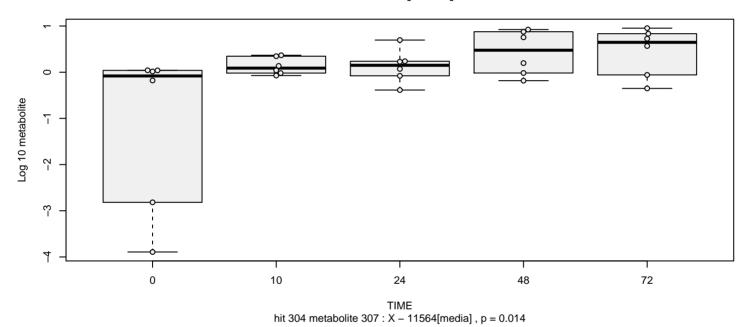


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 302 metabolite 305}: X - 11334 [\text{media}] \text{ , p = 0.19} \end{split}$$

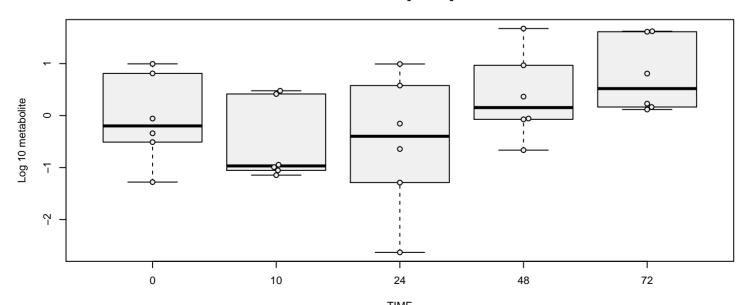
X - 11429[media]



X - 11564[media]

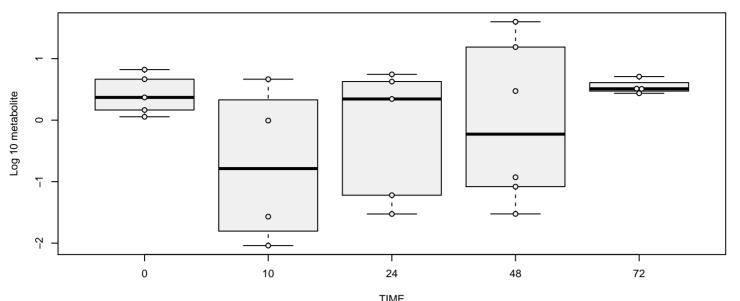


X - 11612[media]



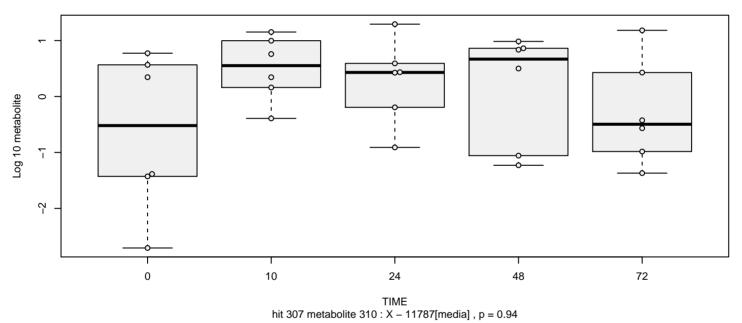
$$\label{eq:TIME} \begin{split} &\text{TIME} \\ &\text{hit 305 metabolite 308}: X-11612 [\text{media}] \text{ , p = 0.02} \end{split}$$

X - 11677[media]

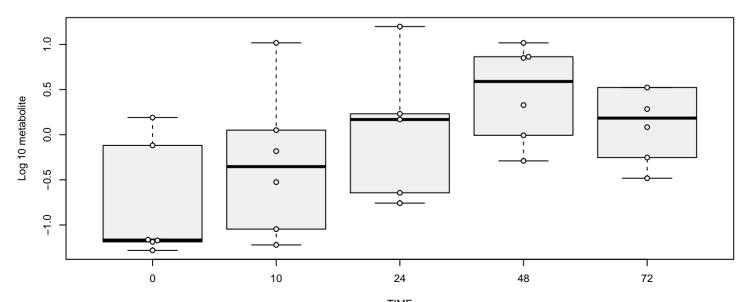


 $\label{eq:TIME} \mbox{hit 306 metabolite 309 : } X-11677[\mbox{media}] \; , \; p=0.48$

X - 11787[media]

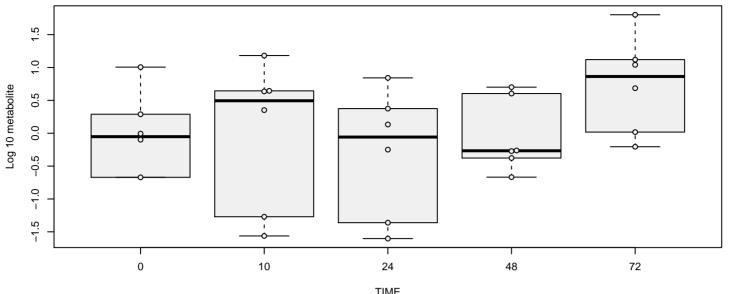


X - 11843[media]



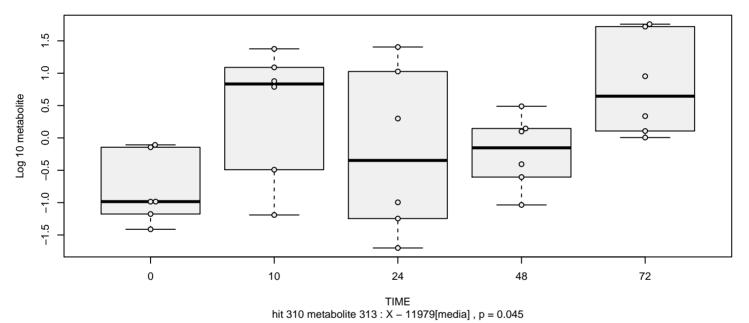
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 308 metabolite 311 : X} - 11843 [\text{media}] \text{ , p} = 0.0051 \end{split}$$

X - 11852[media]

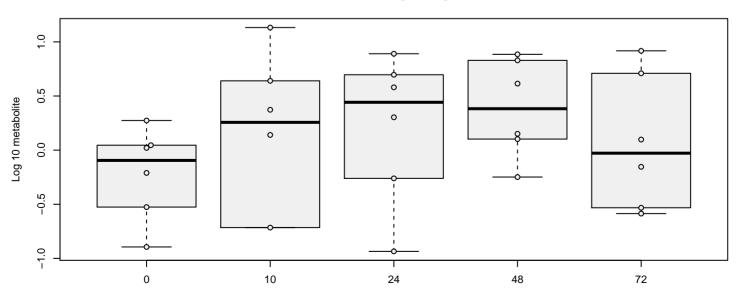


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 309 metabolite 312}: X - 11852 [\text{media}] \text{ , p = 0.065} \end{split}$$

X - 11979[media]

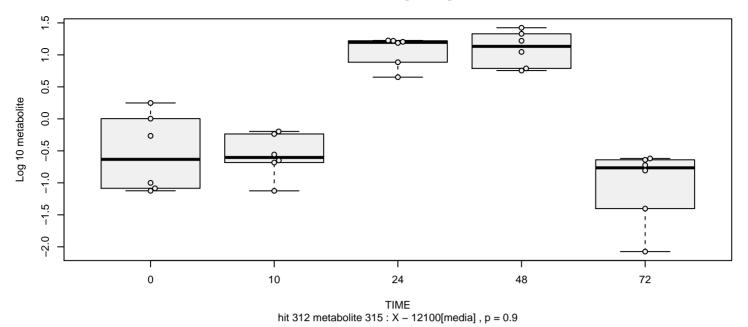


X - 12015[media]

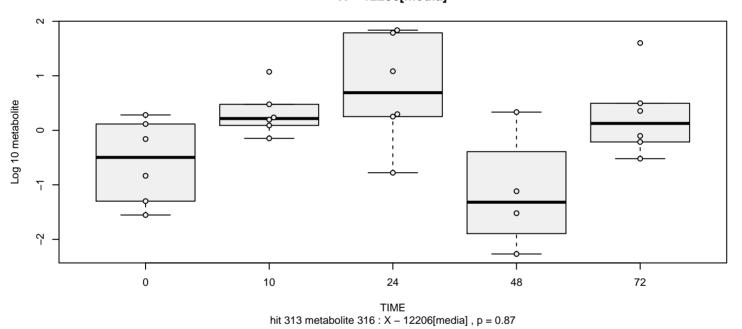


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 311 metabolite 314 : } X - 12015[\text{media}] \text{ , } p = 0.31 \end{split}$$

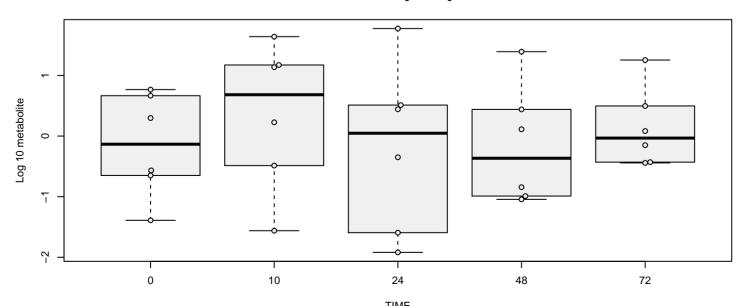
X - 12100[media]



X - 12206[media]

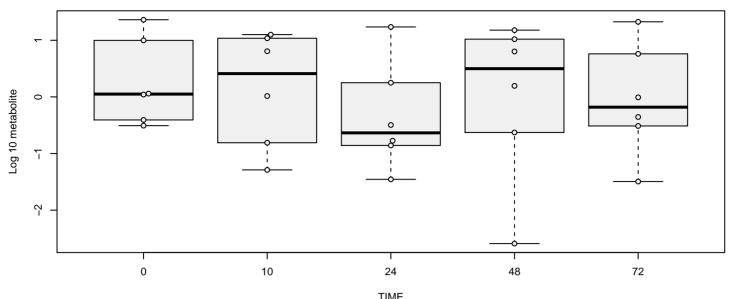


X - 12216[media]



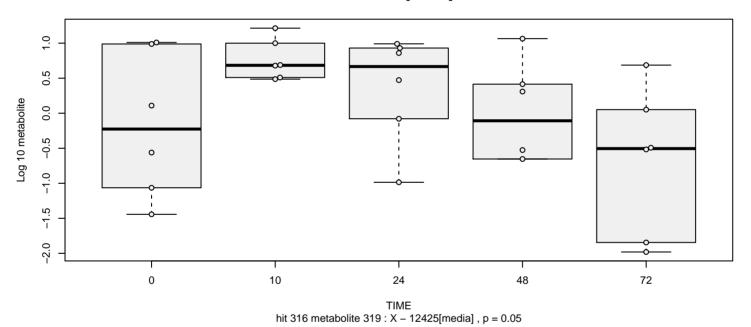
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 314 metabolite 317}: X - 12216 [\text{media}] \text{ , p = 0.96} \end{split}$$

X - 12339[media]

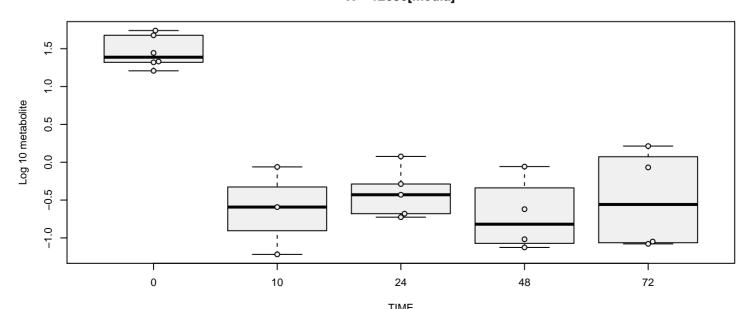


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 315 metabolite 318}: X - 12339 [\text{media}] \text{ , p = 0.67} \end{split}$$

X - 12425[media]

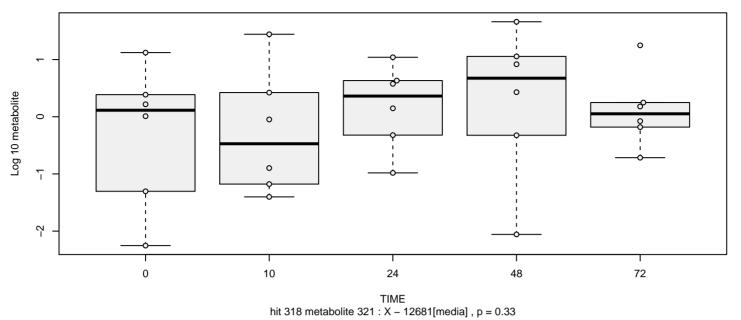


X - 12680[media]

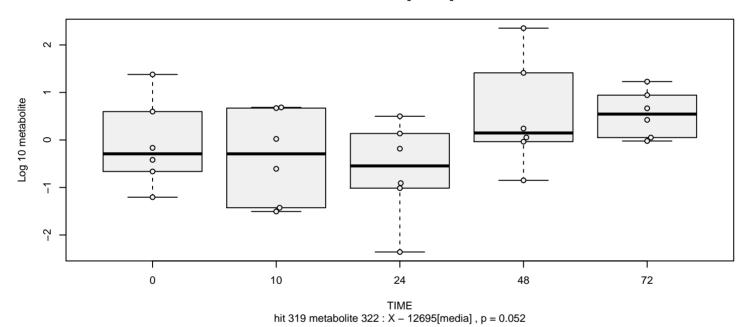


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 317 metabolite 320}: X - 12680 [\text{media}] \text{ , p} = 0.0023 \end{split}$$

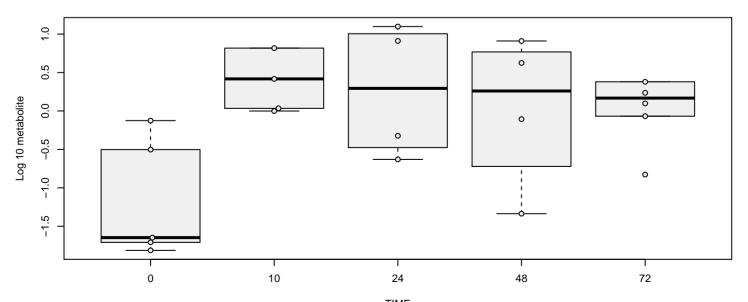
X - 12681[media]



X - 12695[media]

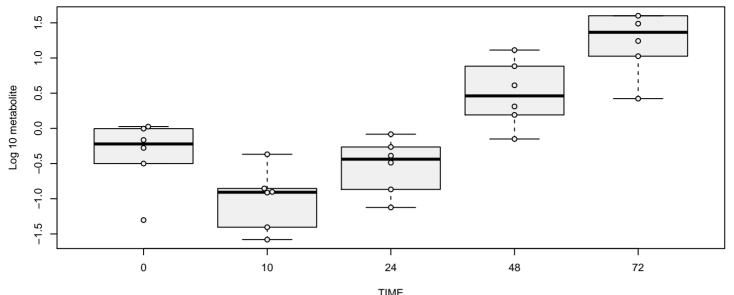


X - 12726[media]



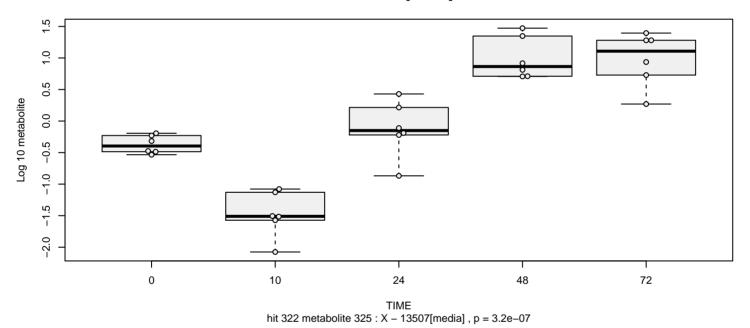
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 320 metabolite 323}: X - 12726 [\text{media}] \text{ , p = 0.25} \end{split}$$

X - 12748[media]

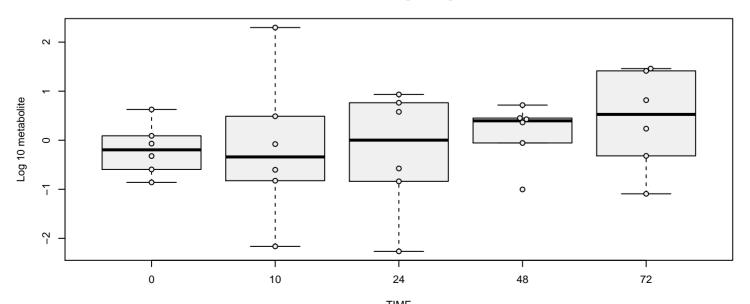


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 321 metabolite 324 : X} - 12748 [\text{media}] \text{ , p = 1.2e-07} \end{split}$$

X - 13507[media]

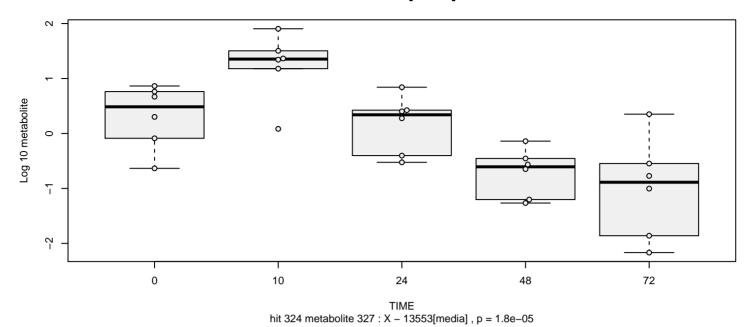


X - 13529[media]

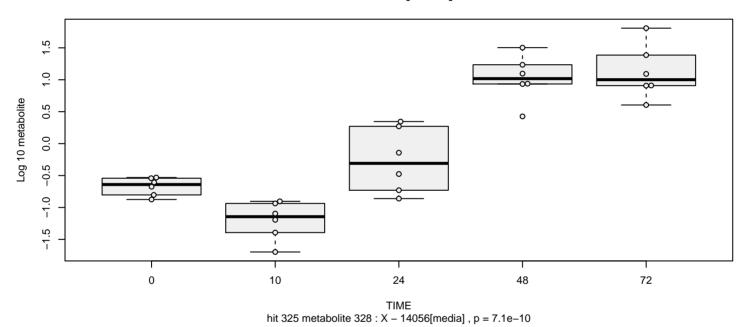


 $\label{eq:TIME} \mbox{hit 323 metabolite 326: } X - 13529[\mbox{media}] \mbox{ , } p = 0.21$

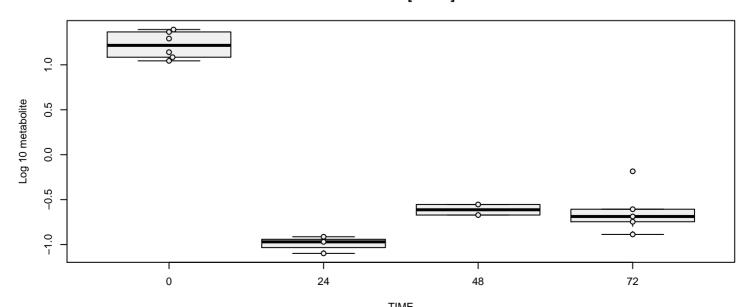
X - 13553[media]



X - 14056[media]

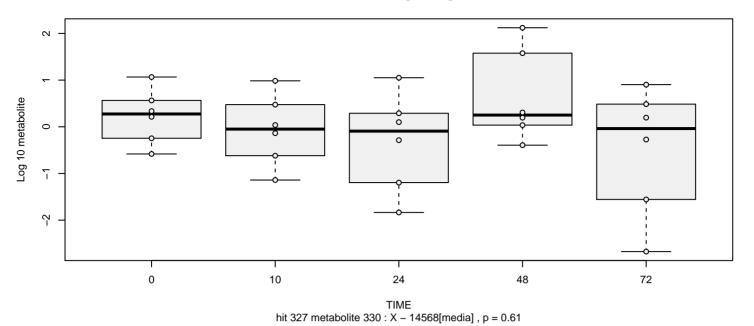


X - 14364[media]

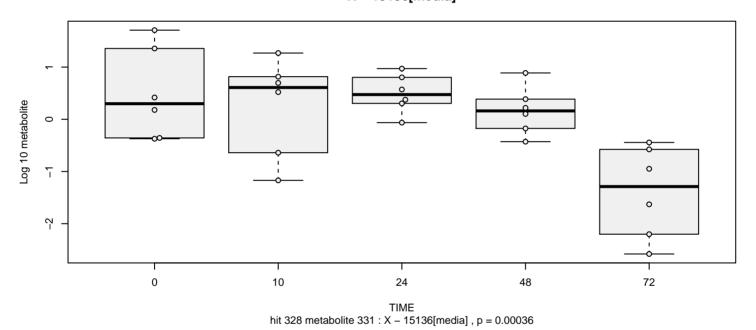


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 326 metabolite 329 : X} - 14364 [\text{media}] \text{ , p} = 0.00079 \end{split}$$

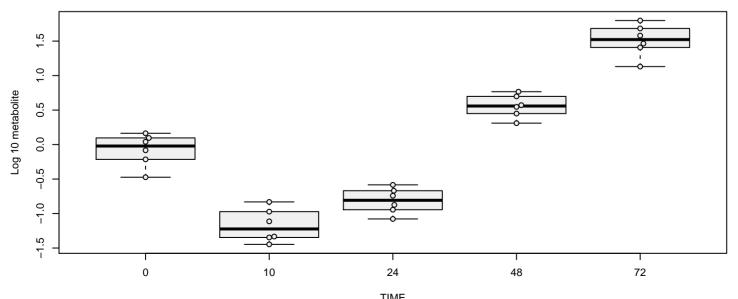
X - 14568[media]



X - 15136[media]

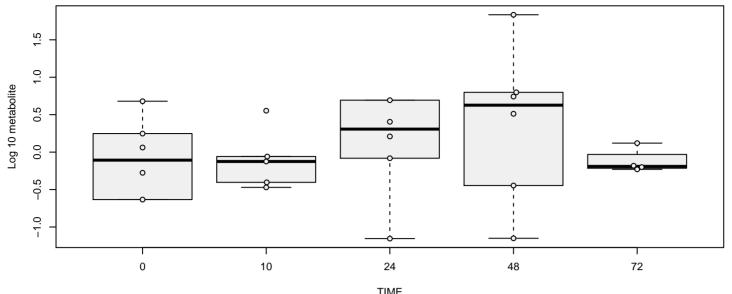


X - 15245[media]



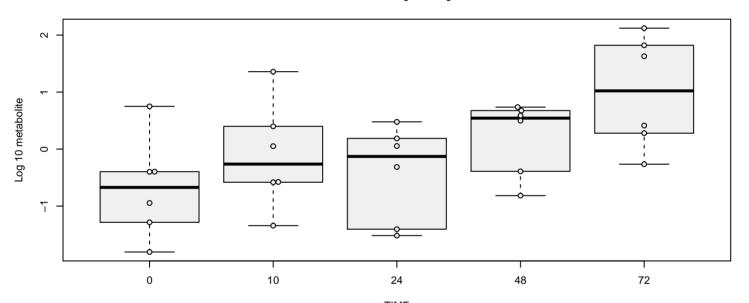
TIME hit 329 metabolite 332 : X - 15245[media] , p = 5.7e-08

X - 15461[media]



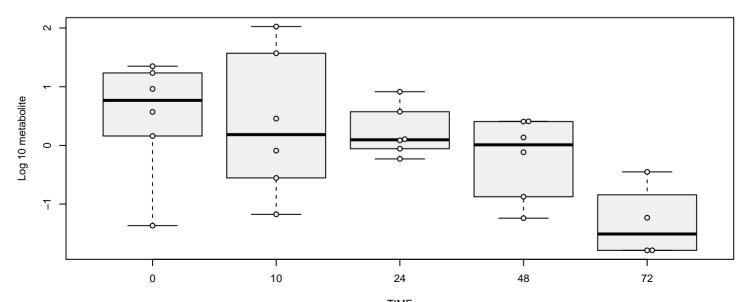
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit } 330 \text{ metabolite } 333: X - 15461[\text{media}] \text{ , p = } 0.37 \end{split}$$

X - 15497[media]



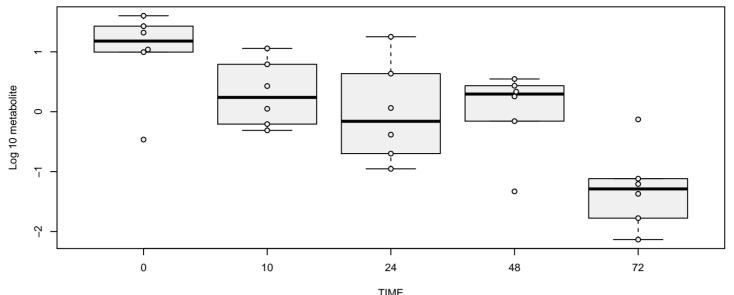
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit } 331 \text{ metabolite } 334: X-15497[\text{media}] \text{ , } p = 0.0015 \end{split}$$

X - 15666[media]



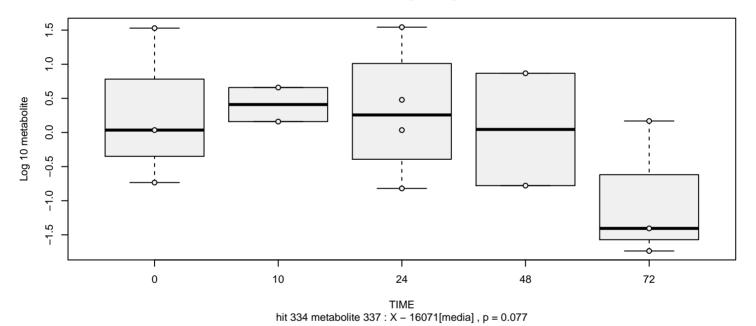
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit } 332 \text{ metabolite } 335: X - 15666[\text{media}] \text{ , } p = 0.0016 \end{split}$$

X - 16060[media]

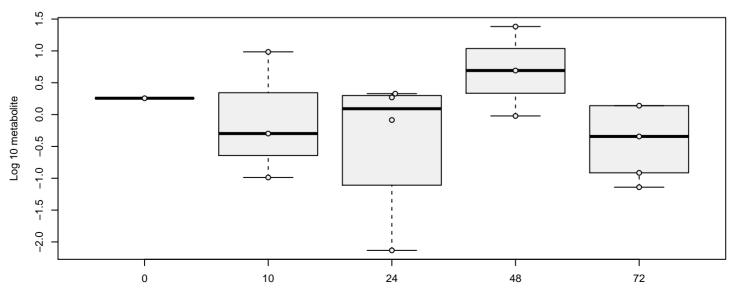


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 333 metabolite 336 : X} - 16060 [\text{media}] \text{ , p} = 2e-05 \end{split}$$

X - 16071[media]

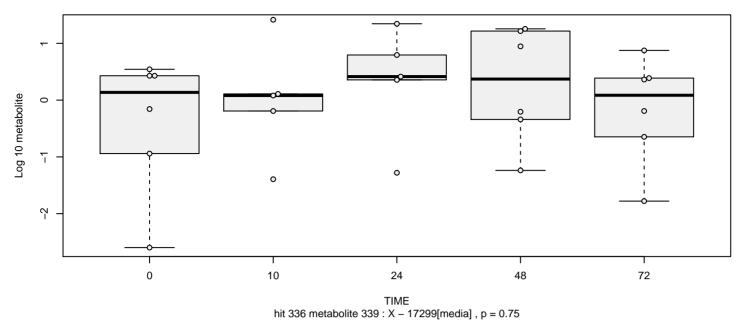


X - 17010[media]

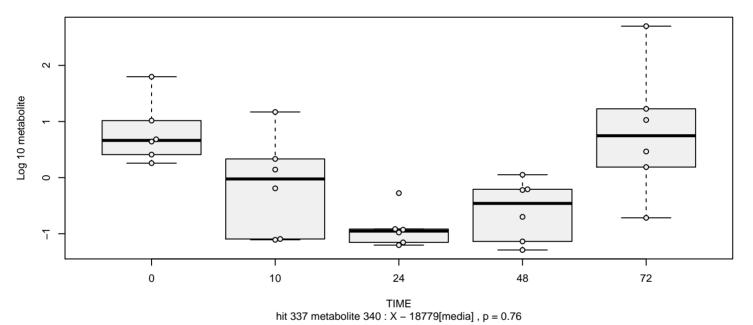


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit } 335 \text{ metabolite } 338: X - 17010[\text{media}] \text{ , p = 0.79} \end{split}$$

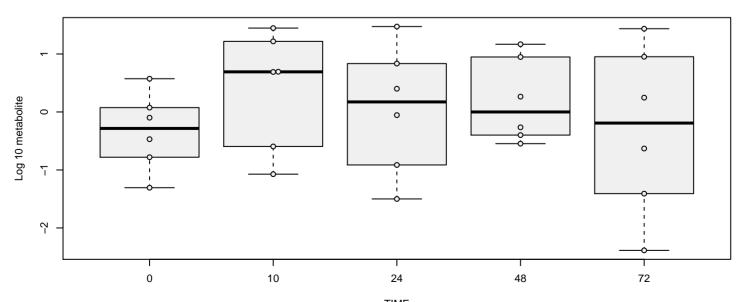
X - 17299[media]



X - 18779[media]

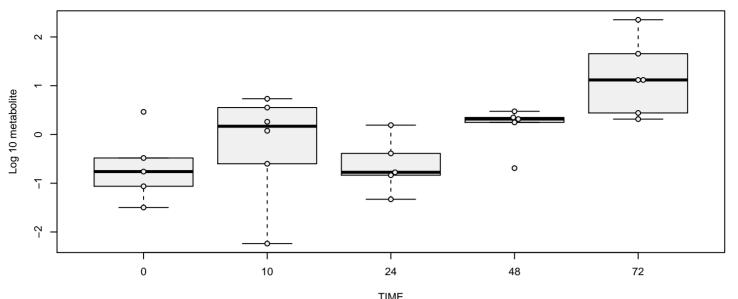


X - 18887[media]



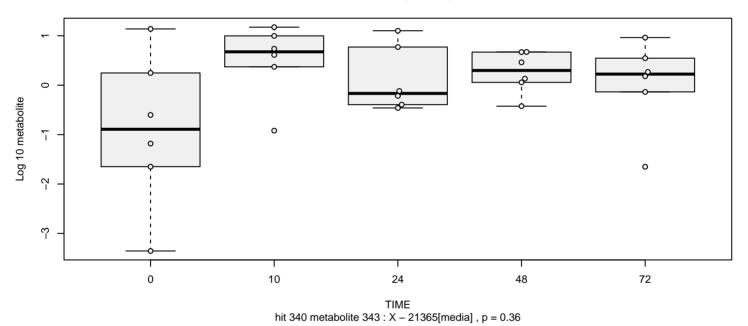
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 338 metabolite 341 : X} - 18887 [\text{media}] \text{ , p = 0.77} \end{split}$$

X - 18889[media]

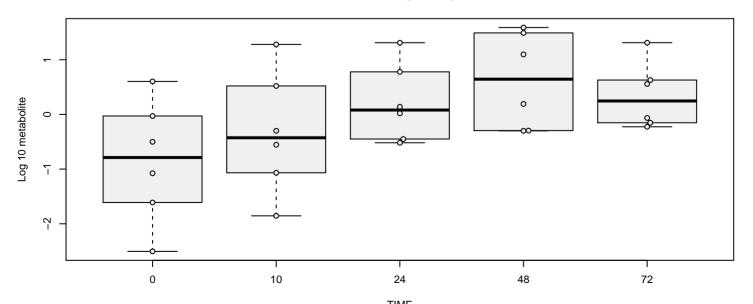


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 339 metabolite 342 : X} - 18889[\text{media}] \text{ , p} = 0.00036 \end{split}$$

X - 21365[media]

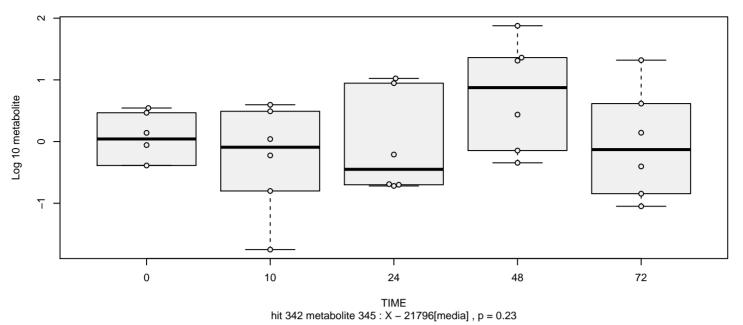


X - 21444[media]

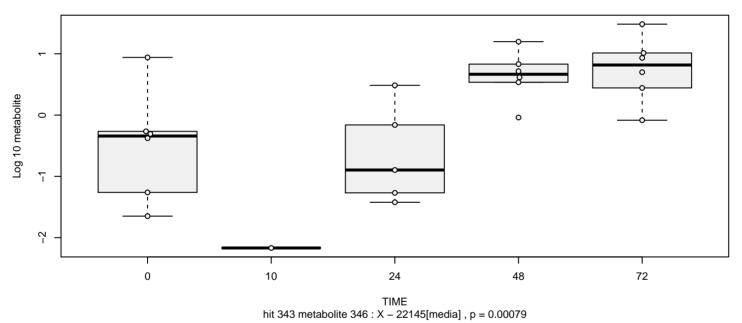


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 341 metabolite 344 : } X - 21444 [\text{media}] \text{ , p = 0.015} \end{split}$$

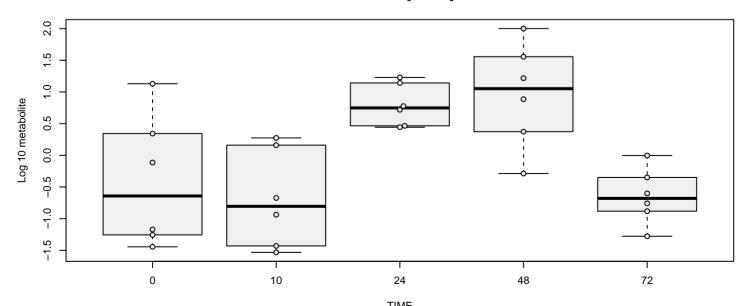
X - 21796[media]



X - 22145[media]

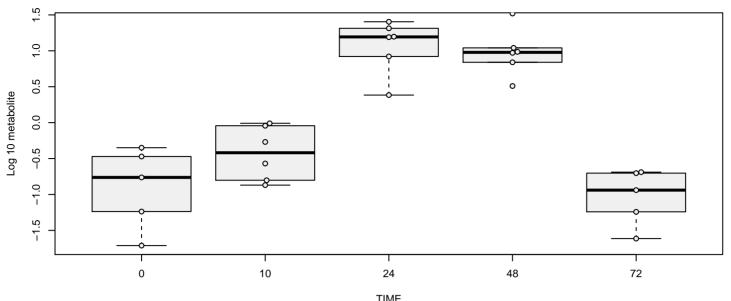


X - 23369[media]



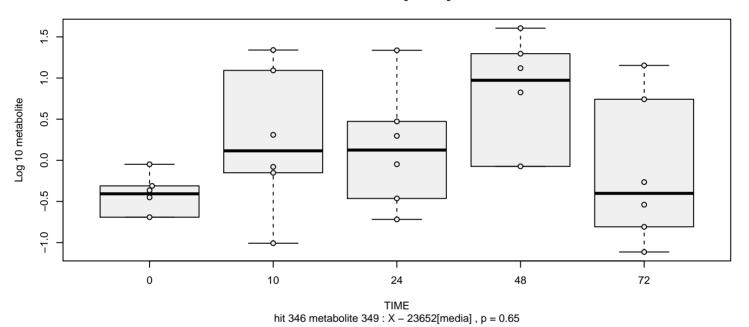
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 344 metabolite 347}: X - 23369[\text{media}] \text{ , p = 0.63} \end{split}$$

X - 23481[media]

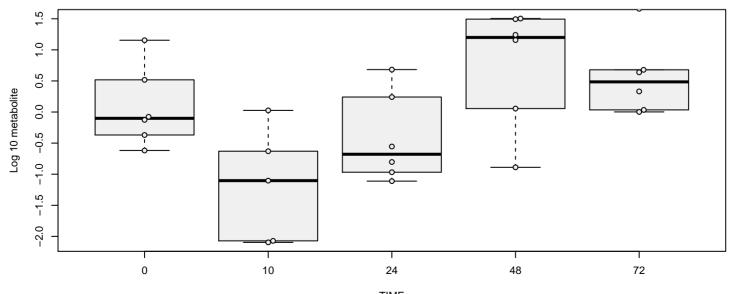


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 345 metabolite 348}: X - 23481 [\text{media}] \text{ , p = 0.79} \end{split}$$

X - 23652[media]

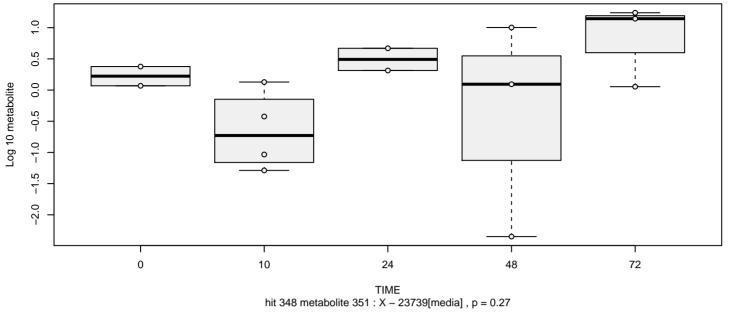


X - 23737[media]

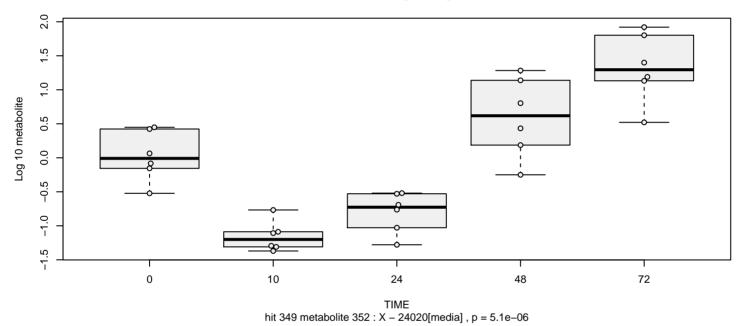


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 347 metabolite 350 : } X - 23737 [\text{media}] \text{ , p = 0.013} \end{split}$$

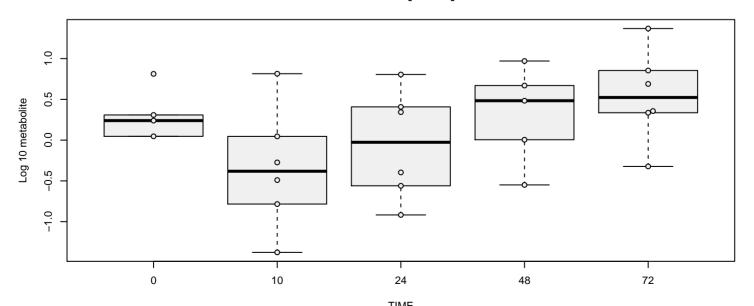
X - 23739[media]



X - 24020[media]

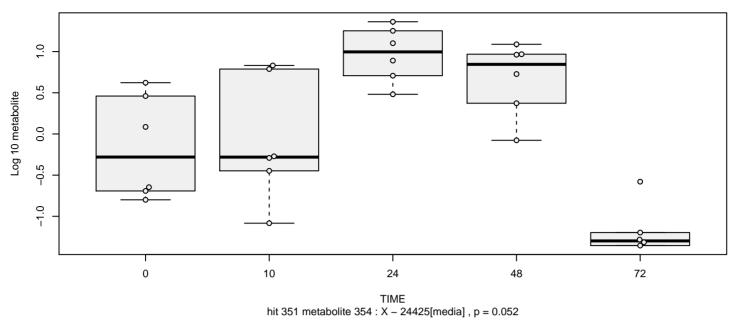


X - 24243[media]

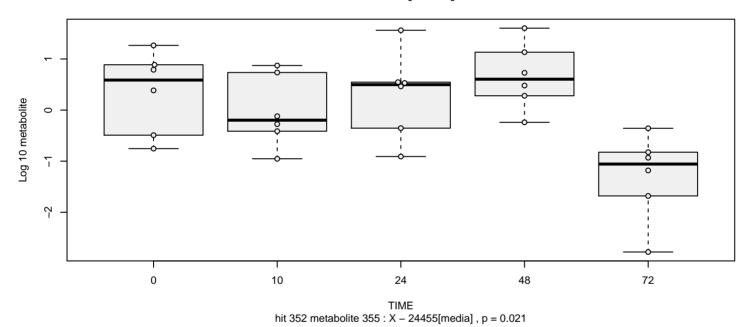


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 350 metabolite 353 : X} - 24243 [\text{media}] \text{ , p = 0.038} \end{split}$$

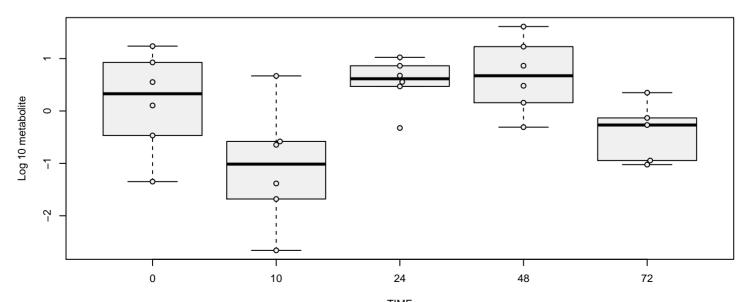
X - 24425[media]



X - 24455[media]

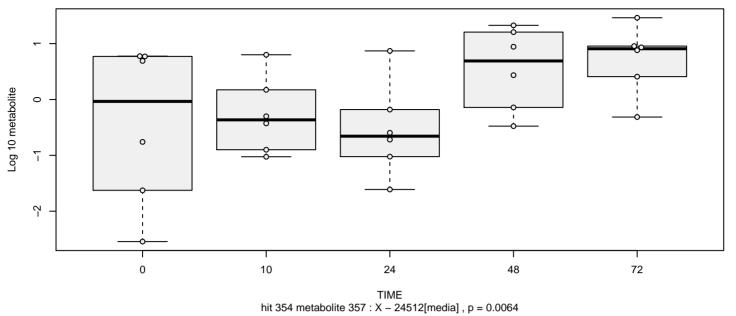


X - 24456[media]

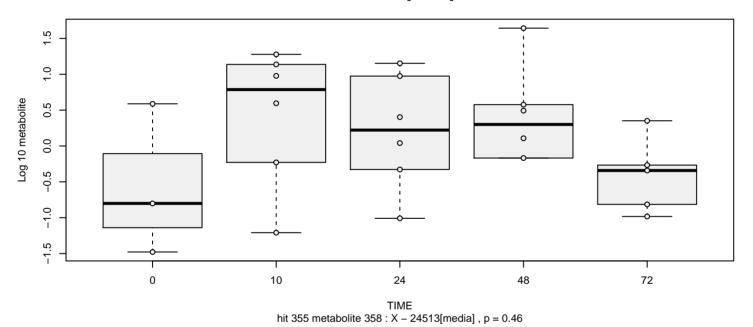


$$\label{eq:TIME} \begin{split} &\text{TIME}\\ &\text{hit 353 metabolite 356}: X-24456[\text{media}] \text{ , p = 0.65} \end{split}$$

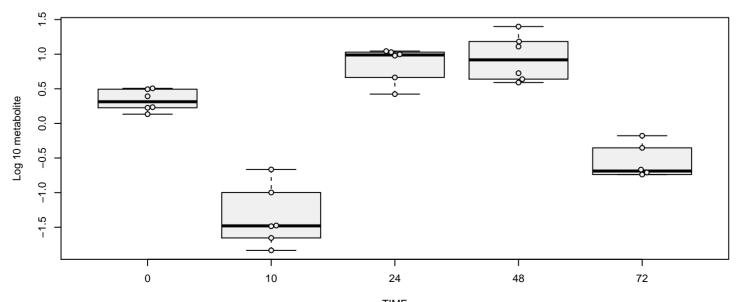
X - 24512[media]



X - 24513[media]

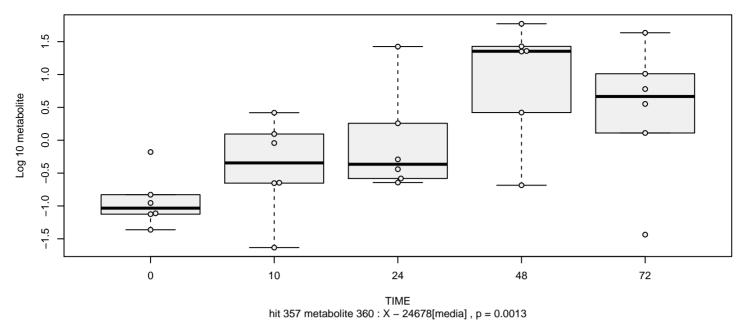


X - 24608[media]

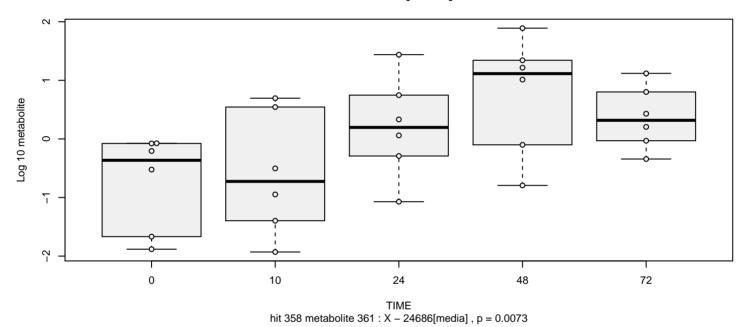


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 356 metabolite 359}: X - 24608 [\text{media}] \text{ , p = 0.88} \end{split}$$

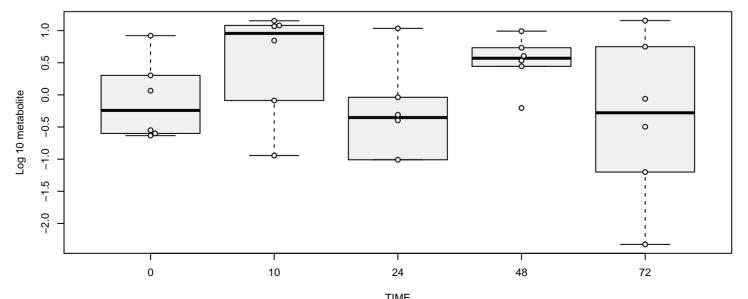
X - 24678[media]



X - 24686[media]

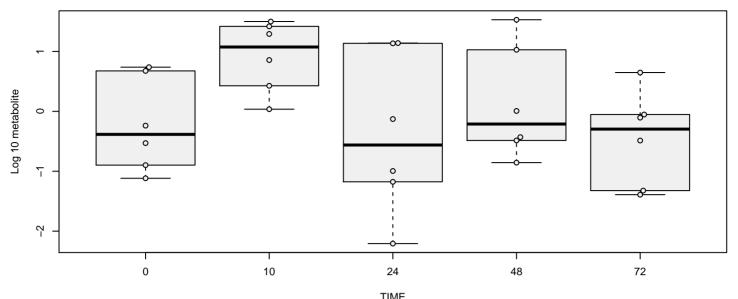


X - 24803[media]



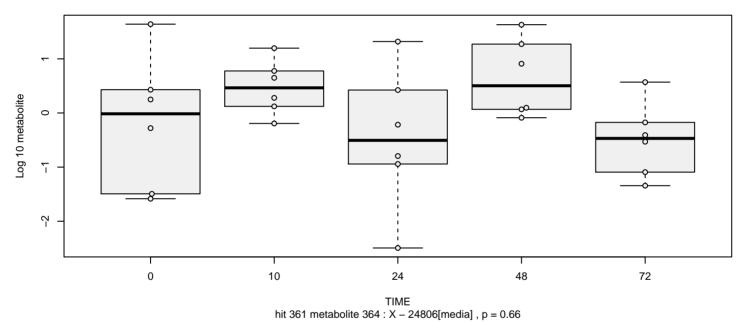
$$\label{eq:TIME} \begin{split} &\text{TIME}\\ &\text{hit 359 metabolite 362}: X-24803[\text{media}] \text{ , p = 0.67} \end{split}$$

X - 24804[media]

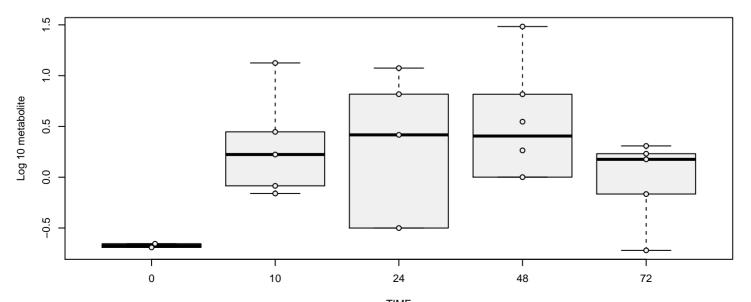


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 360 metabolite 363}: X - 24804 [\text{media}] \text{ , p = 0.28} \end{split}$$

X - 24806[media]

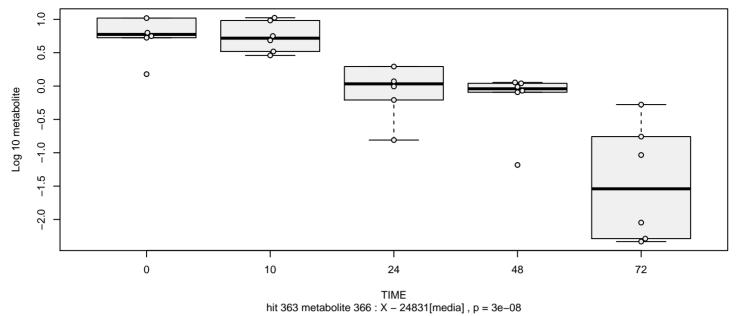


X - 24812[media]

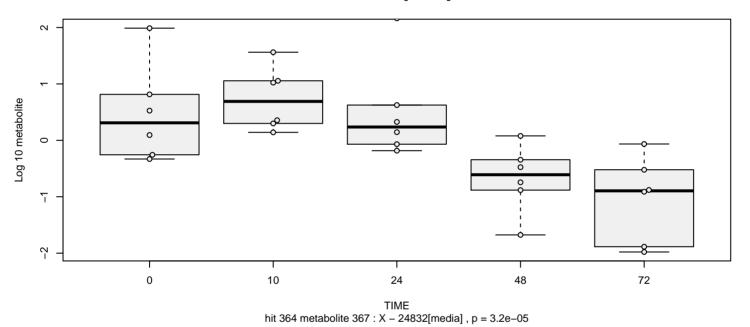


$$\label{eq:TIME} \begin{split} &\text{TIME} \\ &\text{hit 362 metabolite 365}: X - 24812 [\text{media}] \text{ , p = 0.77} \end{split}$$

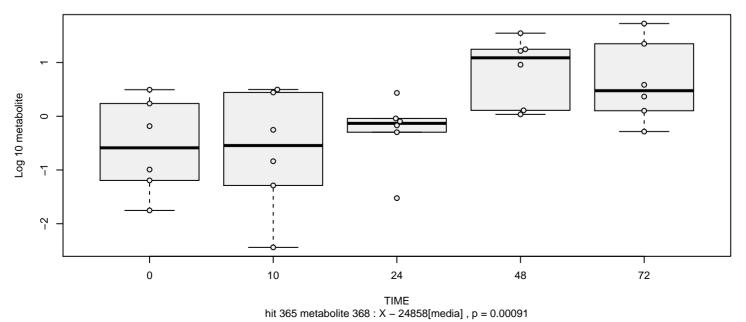
X - 24831[media]



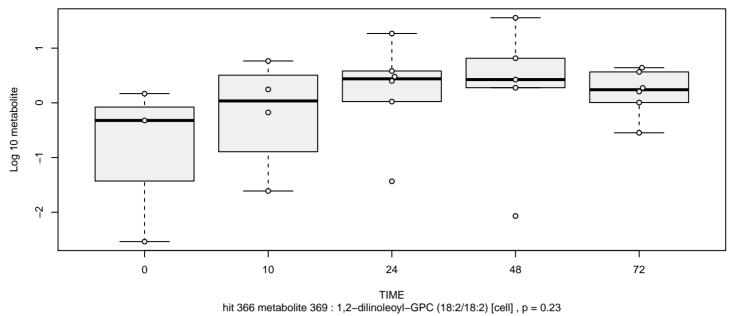
X - 24832[media]



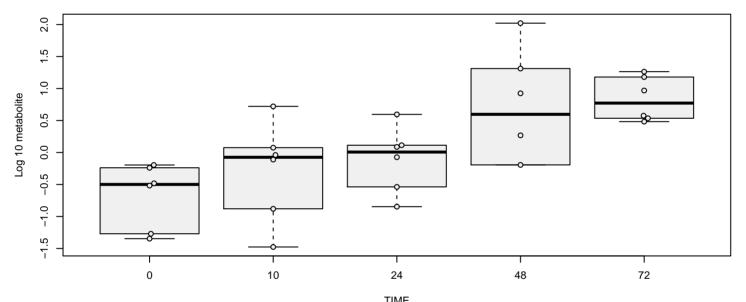
X - 24858[media]



1,2-dilinoleoyl-GPC (18:2/18:2) [cell]

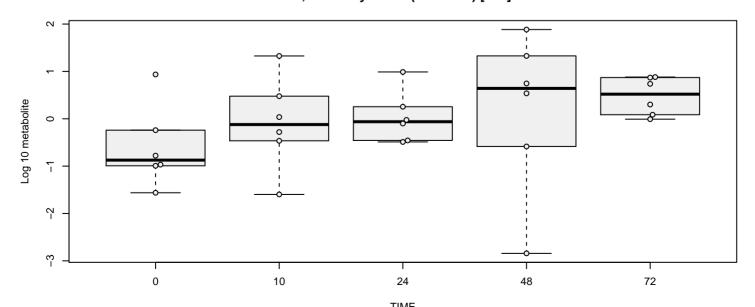


1,2-dioleoyl-GPC (18:1/18:1)* [cell]



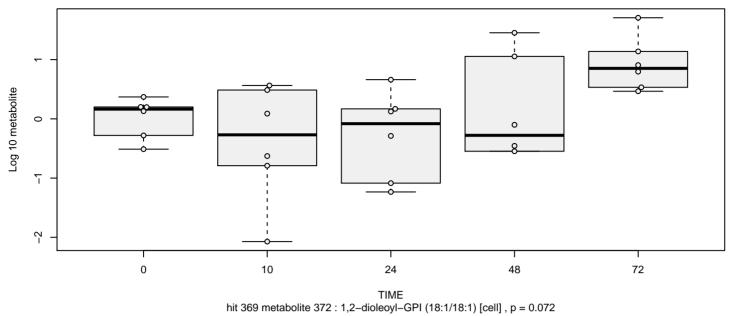
$$\label{eq:time} \begin{split} & \text{TIME} \\ & \text{hit 367 metabolite 370: 1,2-dioleoyl-GPC (18:1/18:1)* [cell] , p = 0.0038 \end{split}$$

1,2-dioleoyl-GPE (18:1/18:1) [cell]

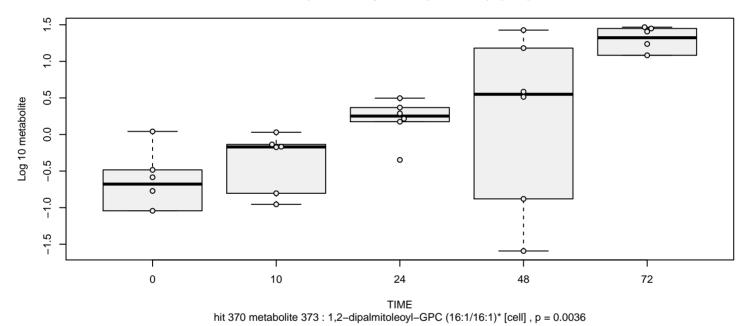


 $\label{eq:time} \begin{array}{c} \text{TIME} \\ \text{hit 368 metabolite 371:1,2-dioleoyl-GPE (18:1/18:1) [cell] , p = 0.072 \end{array}$

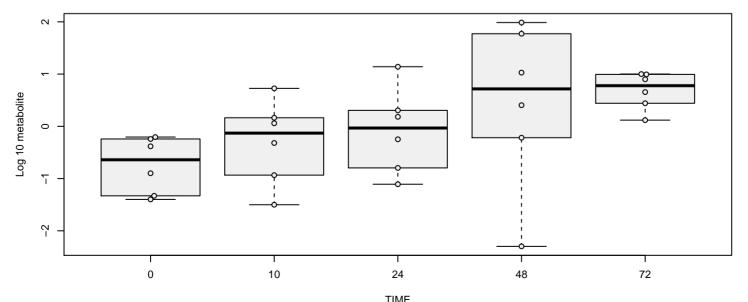
1,2-dioleoyl-GPI (18:1/18:1) [cell]



1,2-dipalmitoleoyl-GPC (16:1/16:1)* [cell]

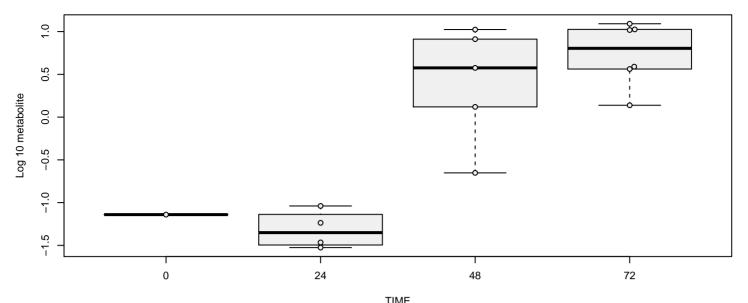


1,2-dipalmitoyl-GPC (16:0/16:0) [cell]



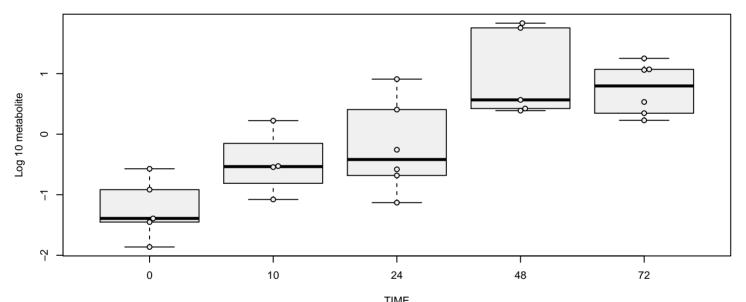
 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 371 metabolite 374: 1,2-dipalmitoyl-GPC (16:0/16:0) [cell] , p = 0.004 \\ \mbox{}$

1,2-distearoyl-GPC (18:0/18:0) [cell]



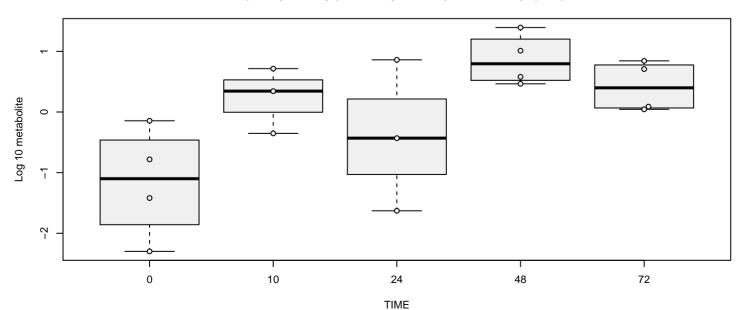
 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 372 metabolite 375: 1,2-distearoyl-GPC (18:0/18:0) [cell] , $p = 8e-05$}$

1,2-distearoyl-GPG (18:0/18:0) [cell]



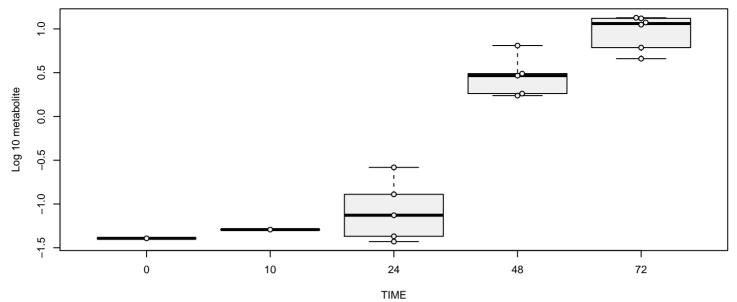
 $\label{eq:time} \begin{tabular}{ll} TIME \\ hit 373 metabolite 376: 1,2-distearoyl-GPG (18:0/18:0) [cell] \ , \ p=8.4e-06 \\ \end{tabular}$

1-(1-enyl-oleoyl)-2-oleoyl-GPE (P-18:1/18:1)* [cell]



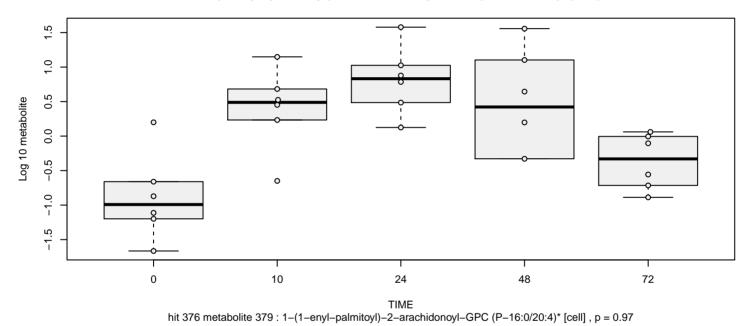
hit 374 metabolite 377 : 1–(1–enyl–oleoyl)–2–oleoyl–GPE (P–18:1/18:1)* [cell] , p = 0.016

1-(1-enyl-oleoyl)-GPE (P-18:1)* [cell]

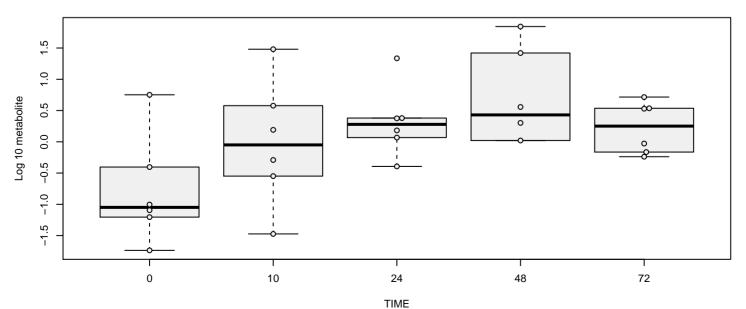


hit 375 metabolite 378 : 1–(1–enyl–oleoyl)–GPE (P–18:1)* [cell] , p = 6.9e-09

1-(1-enyl-palmitoyl)-2-arachidonoyl-GPC (P-16:0/20:4)* [cell]

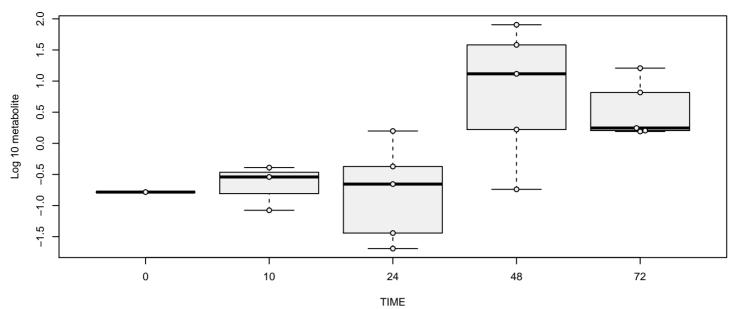


1-(1-enyl-palmitoyl)-2-arachidonoyl-GPE (P-16:0/20:4)* [cell]



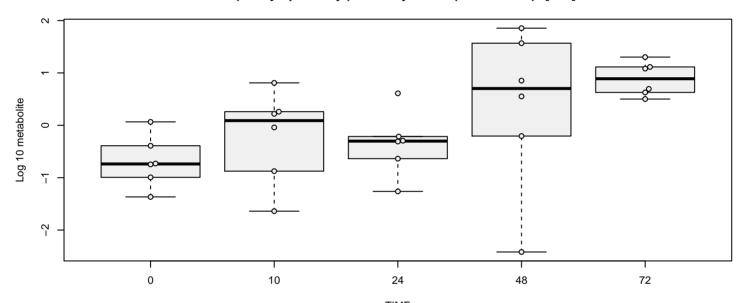
hit 377 metabolite 380 : 1-(1-enyl-palmitoyl)-2-arachidonoyl-GPE (P-16:0/20:4)* [cell], p = 0.14

1-(1-enyl-palmitoyl)-2-linoleoyl-GPC (P-16:0/18:2)* [cell]



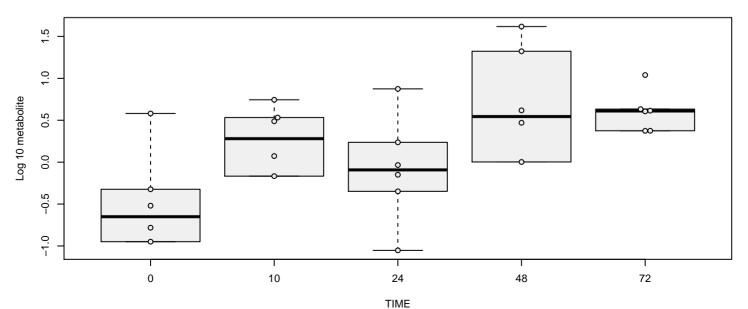
hit 378 metabolite 381 : 1-(1-enyl-palmitoyl)-2-linoleoyl-GPC (P-16:0/18:2)* [cell], p = 0.0053

1-(1-enyl-palmitoyl)-2-oleoyl-GPC (P-16:0/18:1)* [cell]



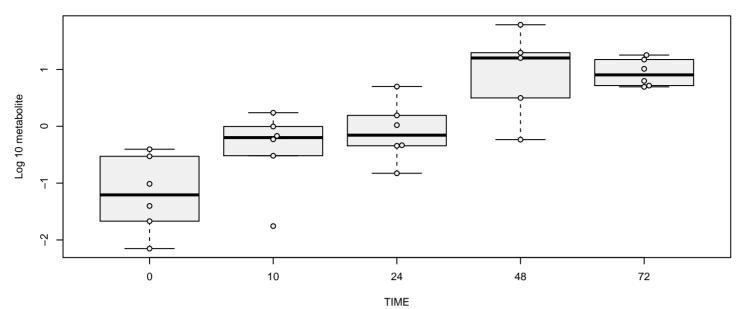
 $\label{eq:TIME} \mbox{hit 379 metabolite 382: } 1-(1-\mbox{enyl-palmitoyl})-2-\mbox{oleoyl-GPC } (P-16:0/18:1)^* \mbox{ [cell] }, \ p=0.0016$

1-(1-enyl-palmitoyl)-2-oleoyl-GPE (P-16:0/18:1)* [cell]



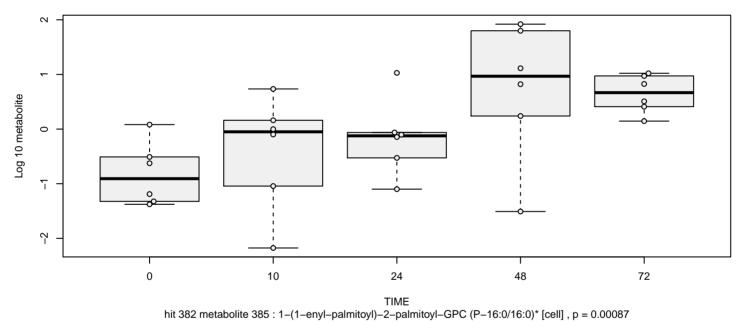
hit 380 metabolite 383 : 1–(1–enyl–palmitoyl)–2–oleoyl–GPE (P–16:0/18:1)* [cell] , p = 0.03

1-(1-enyl-palmitoyl)-2-palmitoleoyl-GPC (P-16:0/16:1)* [cell]

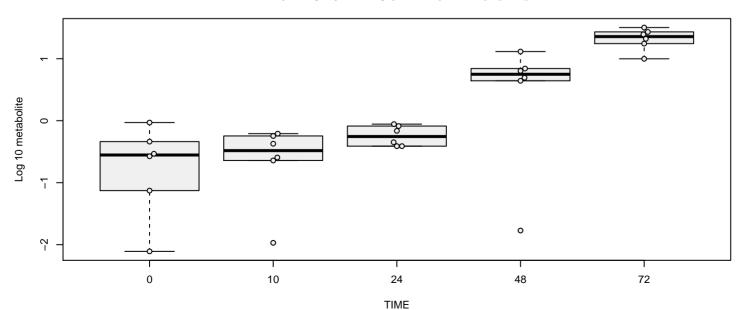


hit 381 metabolite 384 : 1-(1-enyl-palmitoyl)-2-palmitoleoyl-GPC (P-16:0/16:1)* [cell] , p = 6.3e-07

1-(1-enyl-palmitoyl)-2-palmitoyl-GPC (P-16:0/16:0)* [cell]

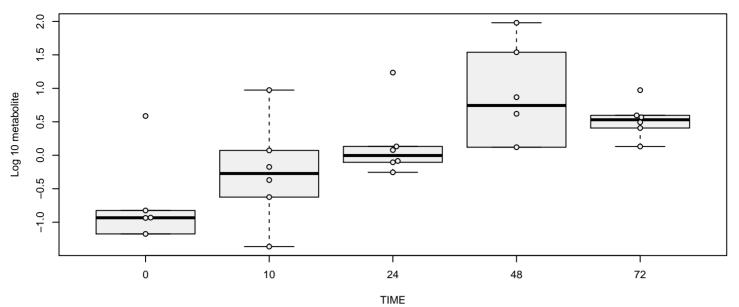


1-(1-enyl-palmitoyl)-GPE (P-16:0)* [cell]



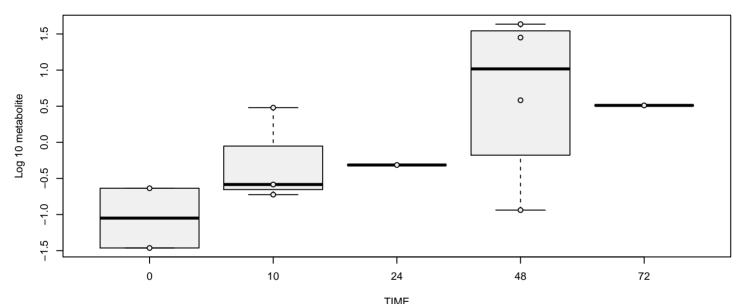
hit 383 metabolite 386 : 1-(1-enyl-palmitoyl)-GPE (P-16:0)* [cell], p = 3.1e-07

1-(1-enyl-stearoyl)-2-arachidonoyl-GPE (P-18:0/20:4)* [cell]



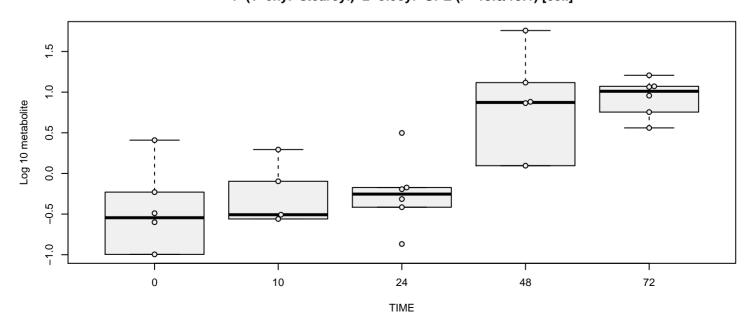
hit 384 metabolite 387 : 1-(1-enyl-stearoyl)-2-arachidonoyl-GPE (P-18:0/20:4)* [cell], p = 0.0084

1-(1-enyl-stearoyl)-2-linoleoyl-GPE (P-18:0/18:2)* [cell]



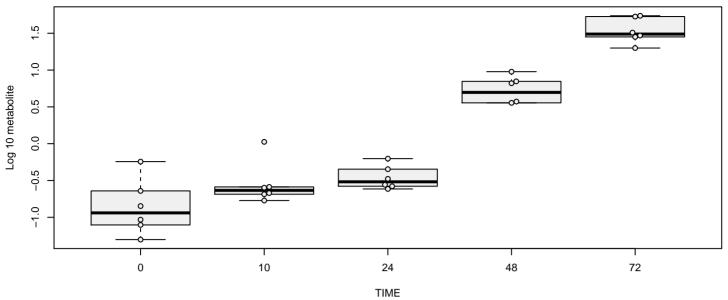
 $\label{eq:TIME} TIME \\ \mbox{hit 385 metabolite 388 : $1-(1-\mbox{enyl}-\mbox{stearoyl})-2-\mbox{linoleoyl-GPE (P-18:0/18:2)* [cell] , p = 0.043} \\ \mbox{ }$

1-(1-enyl-stearoyl)-2-oleoyl-GPE (P-18:0/18:1) [cell]



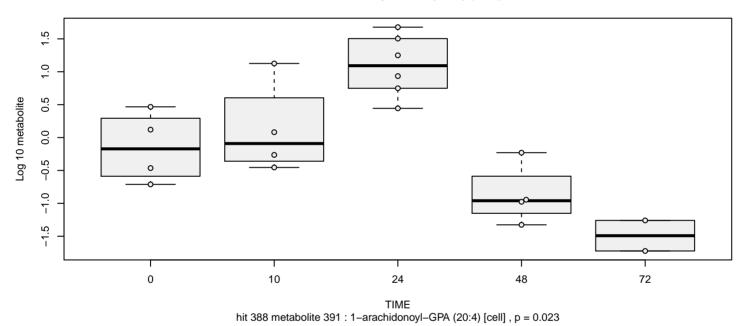
hit 386 metabolite 389 : 1–(1–enyl–stearoyl)–2–oleoyl–GPE (P–18:0/18:1) [cell] , p = 0.00046

1-(1-enyl-stearoyl)-GPE (P-18:0)* [cell]

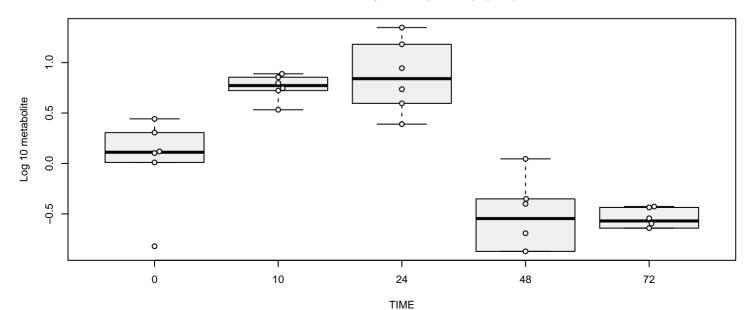


hit 387 metabolite 390 : 1-(1-enyl-stearoyl)-GPE (P-18:0)*[cell], p = 1.7e-09

1-arachidonoyl-GPA (20:4) [cell]

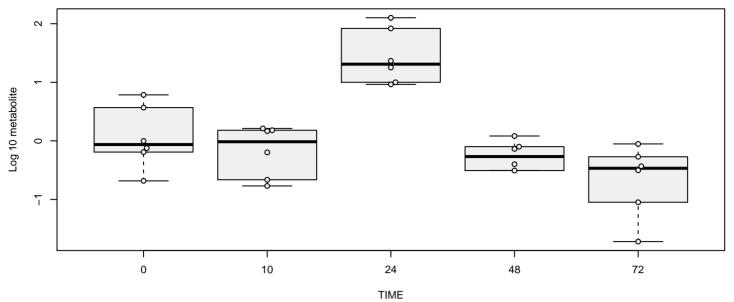


1-arachidonoyl-GPC (20:4n6)* [cell]



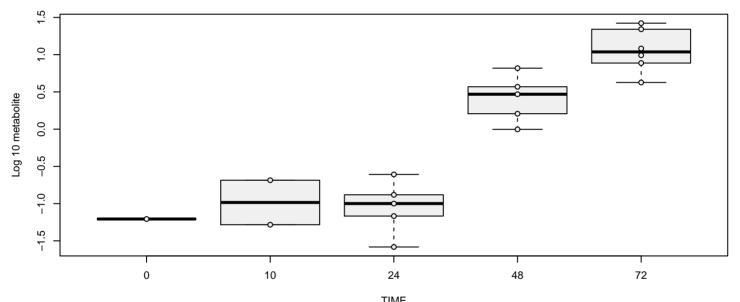
hit 389 metabolite 392 : 1-arachidonoyl-GPC (20:4n6)* [cell] , p = 0.0039

1-arachidonoyl-GPE (20:4n6)* [cell]



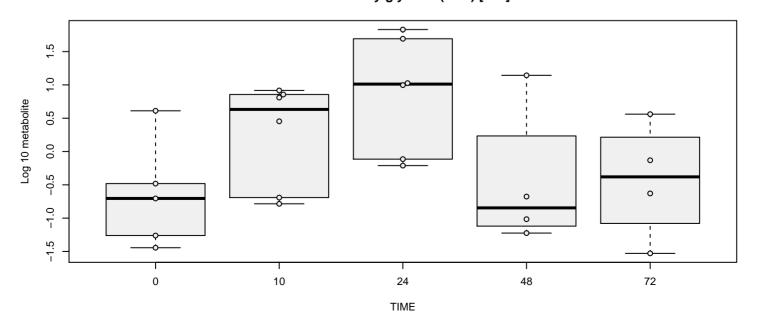
hit 390 metabolite 393 : 1–arachidonoyl–GPE (20:4n6)* [cell] , p = 0.049

1-arachidonoyl-GPI (20:4)* [cell]



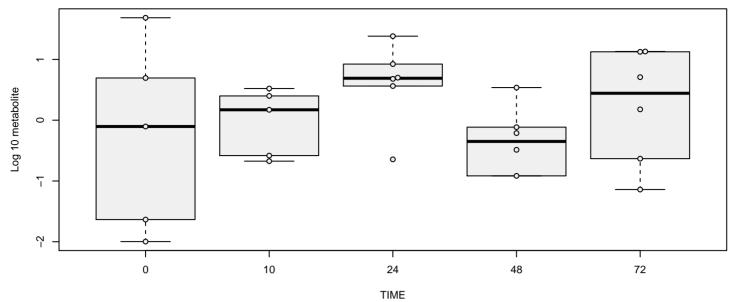
 $\label{eq:TIME} \mbox{hit 391 metabolite 394: 1-arachidonoyl-GPI (20:4)* [cell] , p = 1.7e-08}$

1-arachidonylglycerol (20:4) [cell]



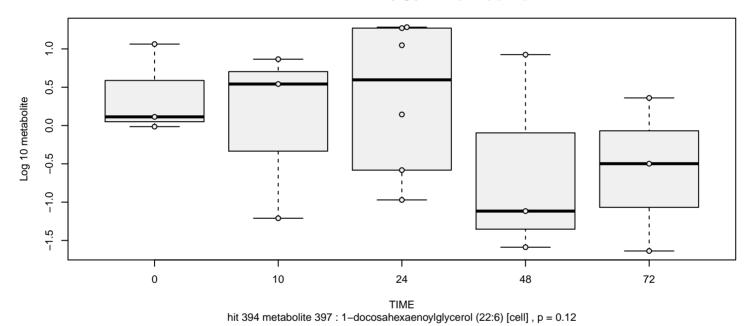
hit 392 metabolite 395 : 1–arachidonylglycerol (20:4) [cell] , p = 0.59

1-dihomo-linolenylglycerol (20:3) [cell]

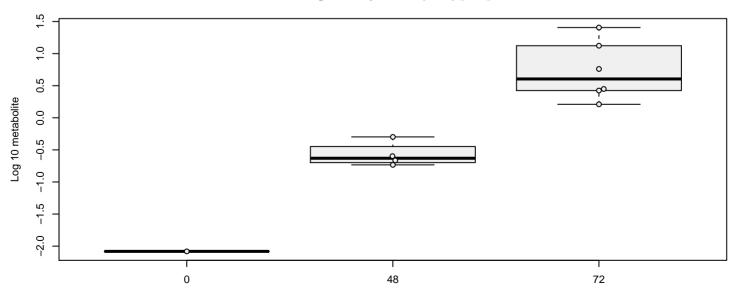


hit 393 metabolite 396 : 1-dihomo-linolenylglycerol (20:3) [cell] , p = 0.9

1-docosahexaenoylglycerol (22:6) [cell]

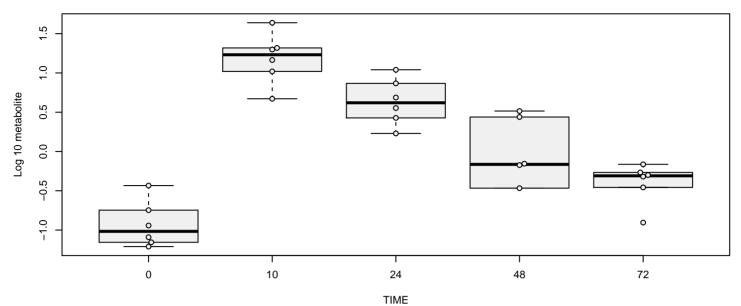


1-lignoceroyl-GPC (24:0) [cell]



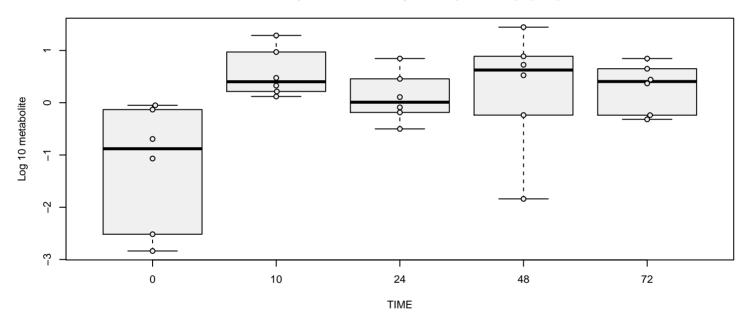
 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 395 metabolite 398 : 1-lignoceroyl-GPC (24:0) [cell] , $p = 5e-05$}$

1-linoleoyl-2-arachidonoyl-GPC (18:2/20:4n6)* [cell]



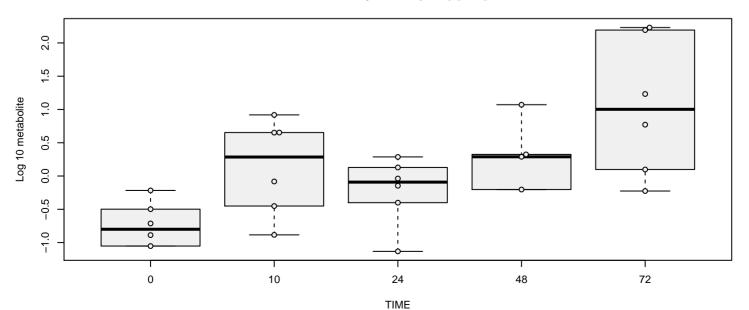
hit 396 metabolite 399 : 1–linoleoyl–2–arachidonoyl–GPC $(18:2/20:4n6)^*$ [cell] , p = 0.3

1-linoleoyl-2-arachidonoyl-GPE (18:2/20:4)* [cell]



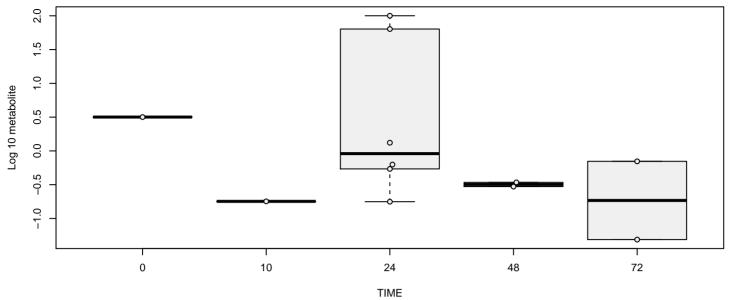
hit 397 metabolite 400 : 1–linoleoyl–2–arachidonoyl–GPE (18:2/20:4)* [cell] , p = 0.083

1-linoleoyl-GPC (18:2) [cell]



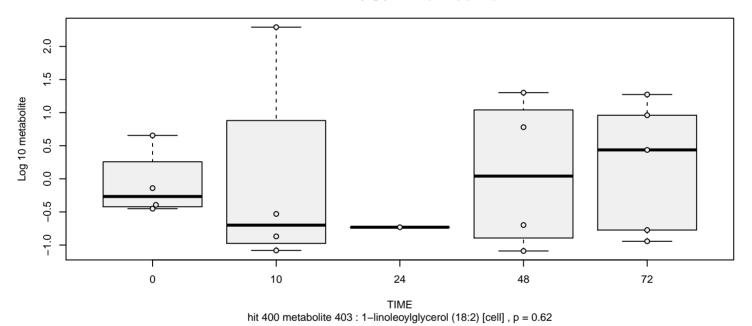
hit 398 metabolite 401 : 1–linoleoyl–GPC (18:2) [cell] , p = 0.0023

1-linoleoyl-GPE (18:2)* [cell]

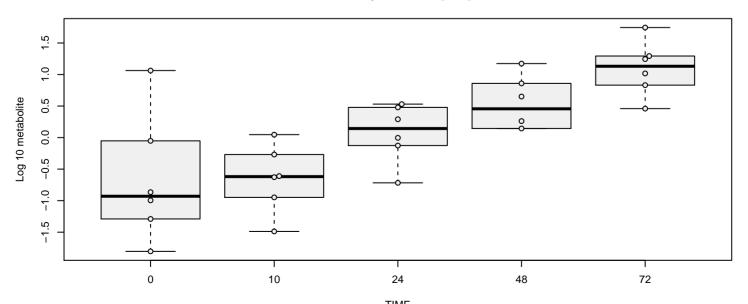


hit 399 metabolite 402 : 1–linoleoyl–GPE (18:2)* [cell] , p = 0.21

1-linoleoylglycerol (18:2) [cell]

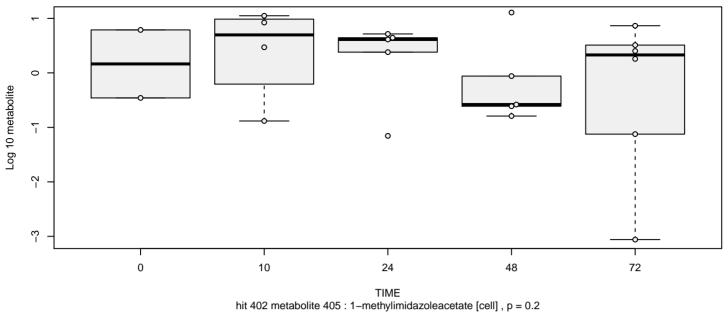


1-methylhistidine [cell]

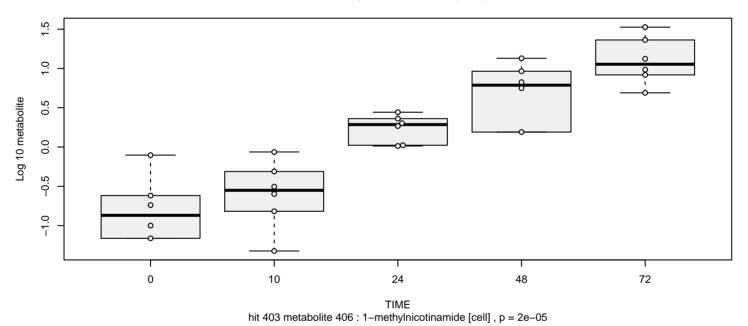


 $\label{eq:time} \begin{array}{c} \text{TIME} \\ \text{hit 401 metabolite 404 : 1--methylhistidine [cell] , p = 2e-04} \end{array}$

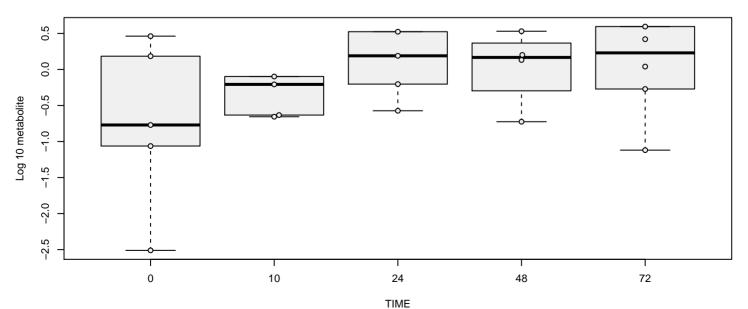
1-methylimidazoleacetate [cell]



1-methylnicotinamide [cell]

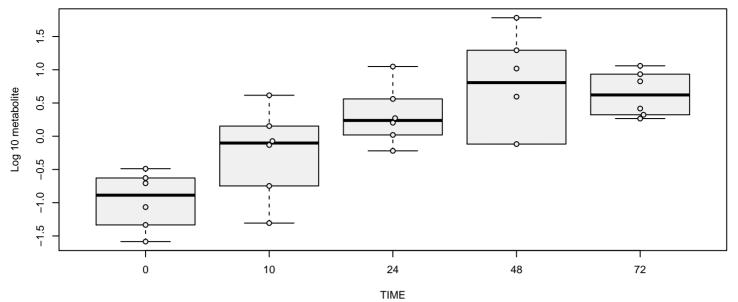


1-myristoylglycerol (14:0) [cell]



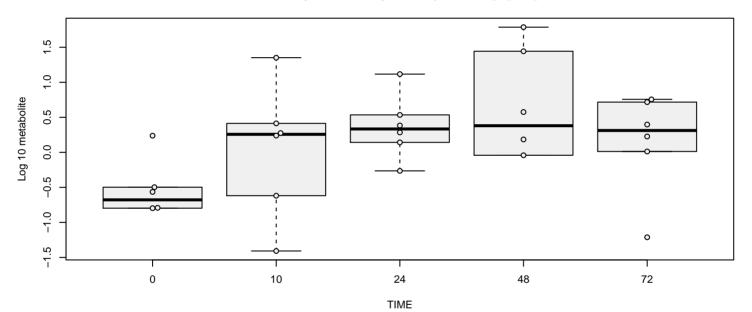
hit 404 metabolite 407 : 1-myristoylglycerol (14:0) [cell] , p = 0.17

1-oleoyl-2-linoleoyl-GPC (18:1/18:2)* [cell]



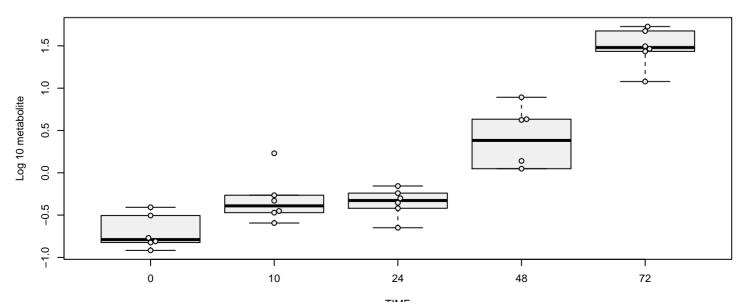
hit 405 metabolite 408 : 1-oleoyl-2-linoleoyl-GPC (18:1/18:2)* [cell] , p = 0.0054

1-oleoyl-2-linoleoyl-GPE (18:1/18:2)* [cell]



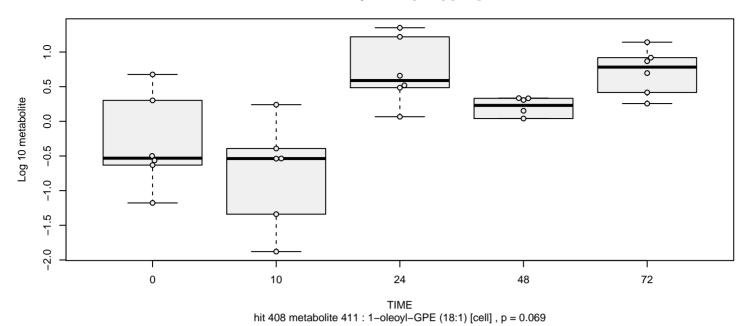
hit 406 metabolite 409 : 1-oleoyl-2-linoleoyl-GPE (18:1/18:2)* [cell] , p = 0.24

1-oleoyl-GPC (18:1) [cell]

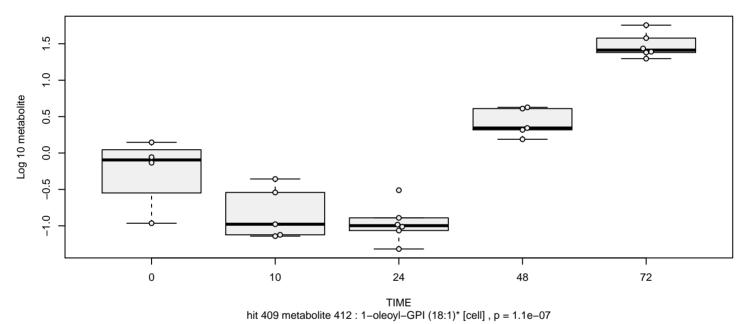


 $\label{eq:time} \begin{array}{c} \text{TIME} \\ \text{hit 407 metabolite 410 : 1-oleoyl-GPC (18:1) [cell] , p = 1.8e-05} \end{array}$

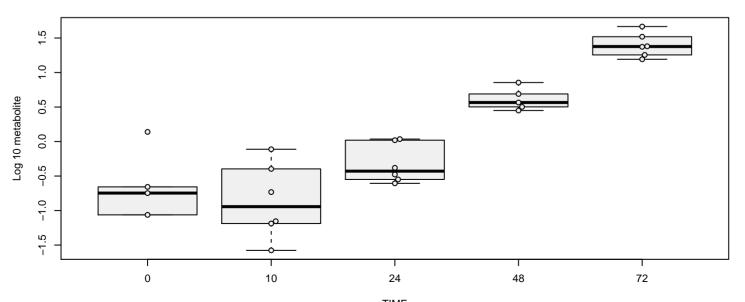
1-oleoyl-GPE (18:1) [cell]



1-oleoyl-GPI (18:1)* [cell]

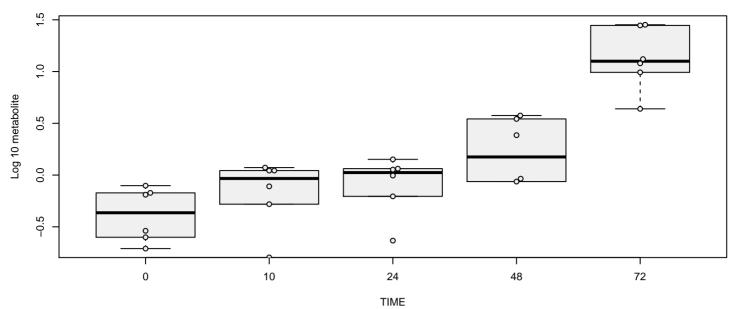


1-oleoyl-GPS (18:1) [cell]



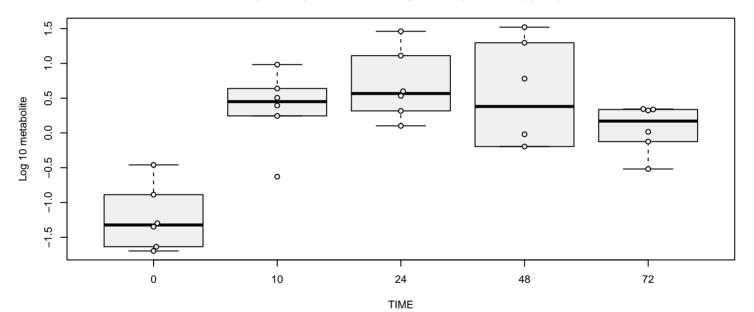
 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 410 metabolite 413 : 1-oleoyl-GPS (18:1) [cell] , p = 4.2e-11} \\$

1-palmitoleoyl-GPC (16:1)* [cell]



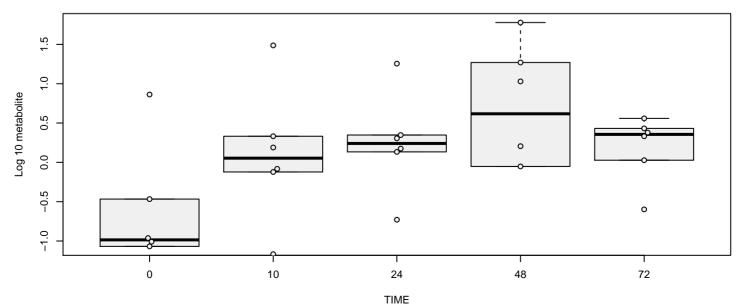
hit 411 metabolite 414 : 1-palmitoleoyl-GPC (16:1)* [cell] , p = 0.02

1-palmitoyl-2-arachidonoyl-GPC (16:0/20:4) [cell]



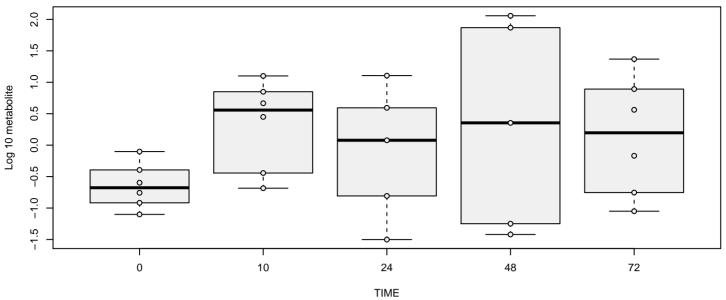
hit 412 metabolite 415 : 1-palmitoyl-2-arachidonoyl-GPC (16:0/20:4) [cell] , p = 0.21

1-palmitoyl-2-arachidonoyl-GPE (16:0/20:4)* [cell]



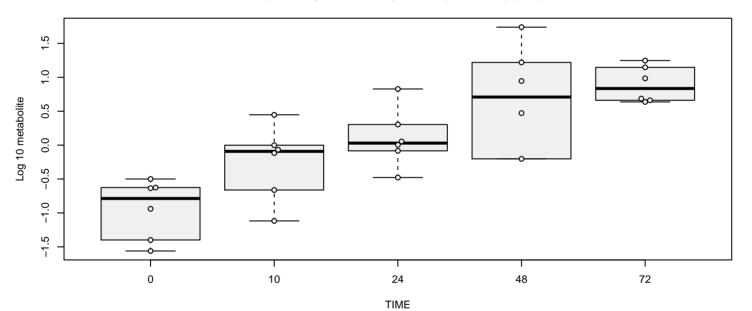
hit 413 metabolite 416 : 1–palmitoyl–2–arachidonoyl–GPE (16:0/20:4)* [cell] , p = 0.17

1-palmitoyl-2-arachidonoyl-GPI (16:0/20:4)* [cell]



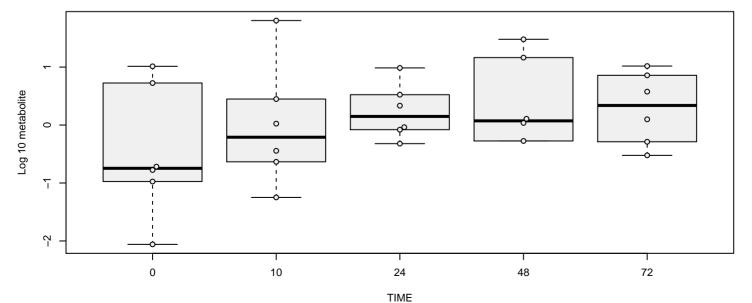
hit 414 metabolite 417 : 1-palmitoyl-2-arachidonoyl-GPI (16:0/20:4)* [cell] , p = 0.32

1-palmitoyl-2-linoleoyl-GPC (16:0/18:2) [cell]



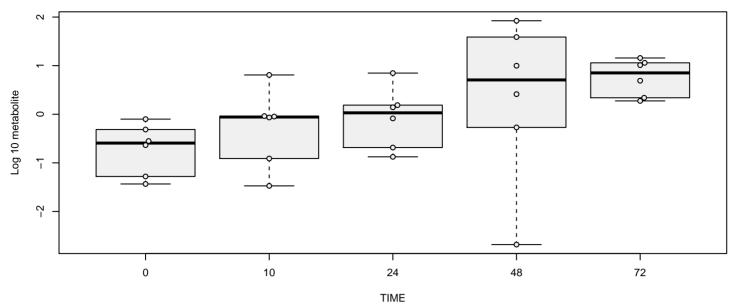
hit 415 metabolite 418 : 1-palmitoyl-2-linoleoyl-GPC (16:0/18:2) [cell] , p = 0.00091

1-palmitoyl-2-linoleoyl-GPE (16:0/18:2) [cell]



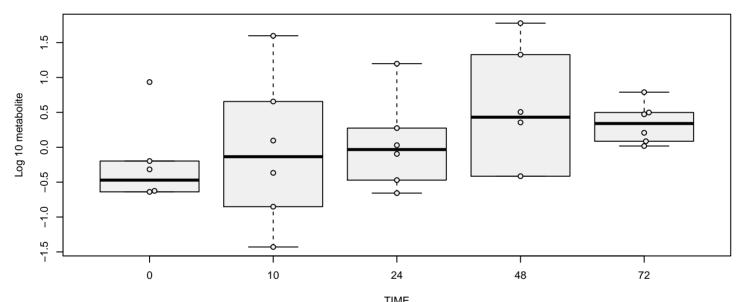
hit 416 metabolite 419 : 1–palmitoyl–2–linoleoyl–GPE (16:0/18:2) [cell] , p = 0.32

1-palmitoyl-2-oleoyl-GPC (16:0/18:1) [cell]



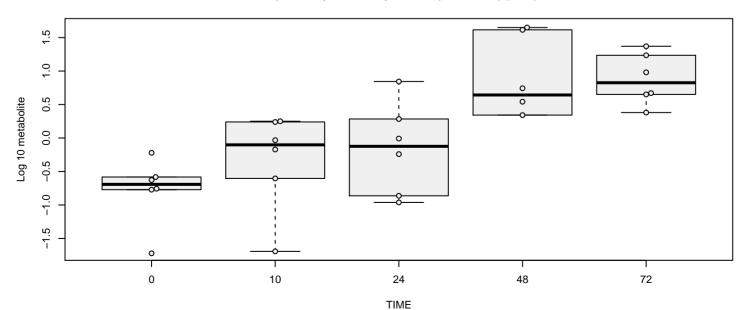
hit 417 metabolite 420 : 1-palmitoyl-2-oleoyl-GPC (16:0/18:1) [cell] , p = 0.0041

1-palmitoyl-2-oleoyl-GPE (16:0/18:1) [cell]



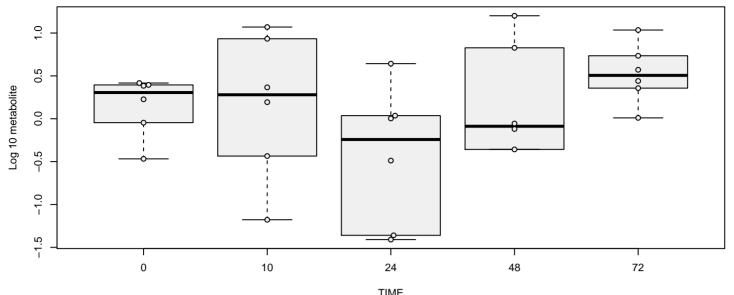
 $\label{eq:time} TIME \\ \mbox{hit 418 metabolite 421 : 1-palmitoyl-2-oleoyl-GPE (16:0/18:1) [cell] , p = 0.23 \\ \mbox{}$

1-palmitoyl-2-oleoyl-GPG (16:0/18:1) [cell]



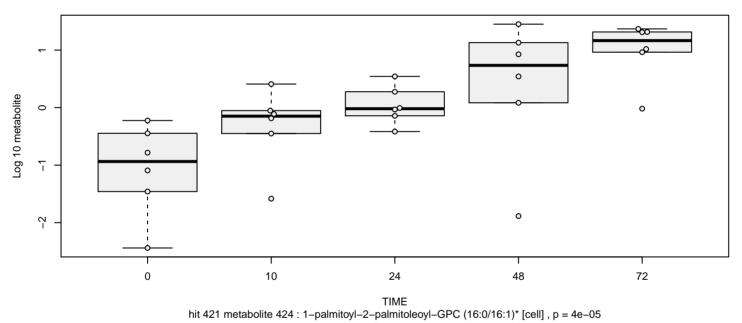
hit 419 metabolite 422 : 1–palmitoyl–2–oleoyl–GPG (16:0/18:1) [cell] , p = 0.00071

1-palmitoyl-2-oleoyl-GPS (16:0/18:1) [cell]

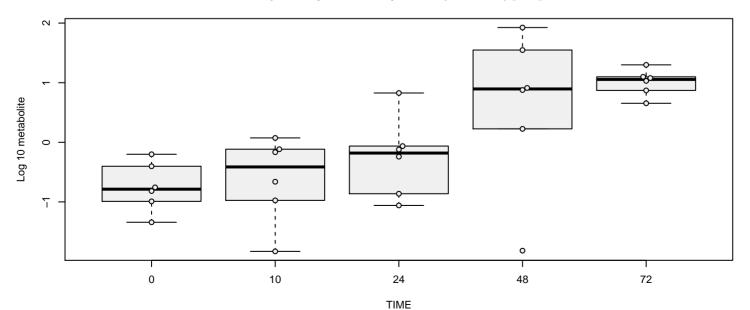


 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 420 metabolite 423 : 1-palmitoyl-2-oleoyl-GPS (16:0/18:1) [cell] , p = 0.7 \\ \mbox{}$

1-palmitoyl-2-palmitoleoyl-GPC (16:0/16:1)* [cell]

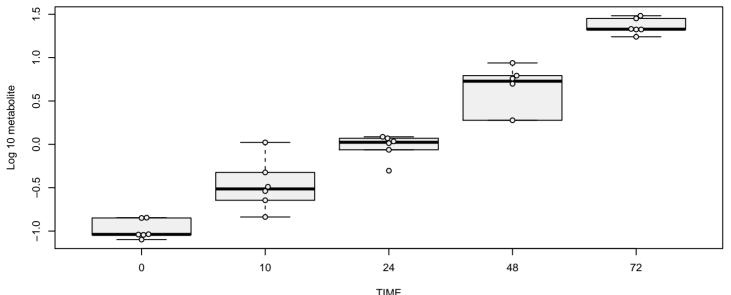


1-palmitoyl-2-stearoyl-GPC (16:0/18:0) [cell]



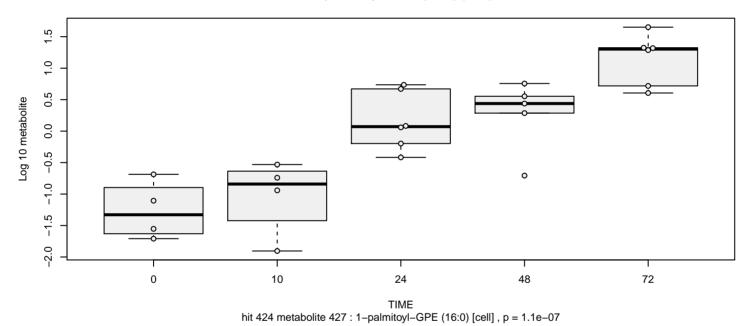
hit 422 metabolite 425 : 1-palmitoyl-2-stearoyl-GPC (16:0/18:0) [cell] , p = 1.9e-05

1-palmitoyl-GPC (16:0) [cell]

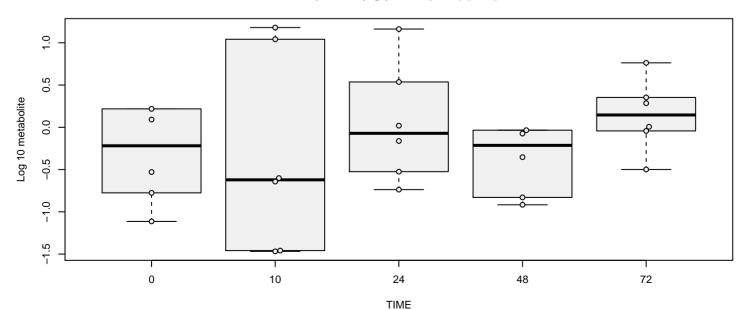


 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 423 metabolite 426 : 1-palmitoyl-GPC (16:0) [cell] , p = 8.4e-07 \\ \mbox{}$

1-palmitoyl-GPE (16:0) [cell]

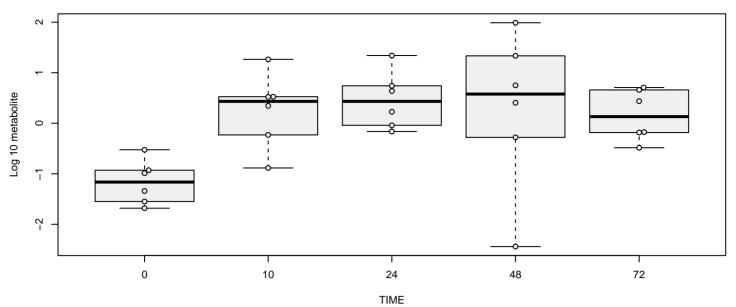


1-palmitoylglycerol (16:0) [cell]



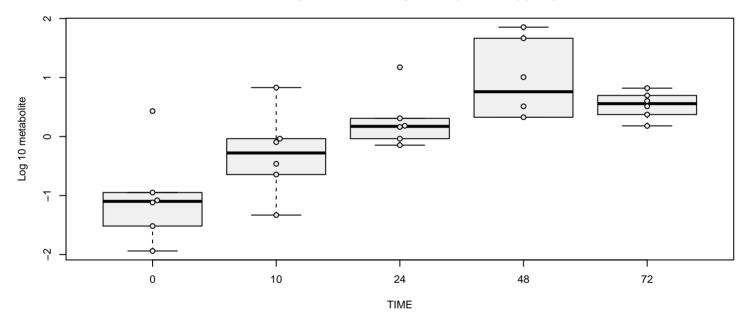
hit 425 metabolite 428 : 1-palmitoylglycerol (16:0) [cell] , p = 0.49

1-stearoyl-2-arachidonoyl-GPC (18:0/20:4) [cell]



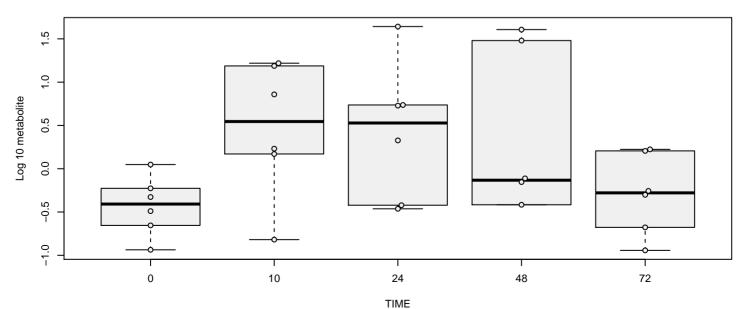
hit 426 metabolite 429 : 1-stearoyl-2-arachidonoyl-GPC (18:0/20:4) [cell] , p = 0.1

1-stearoyl-2-arachidonoyl-GPE (18:0/20:4) [cell]



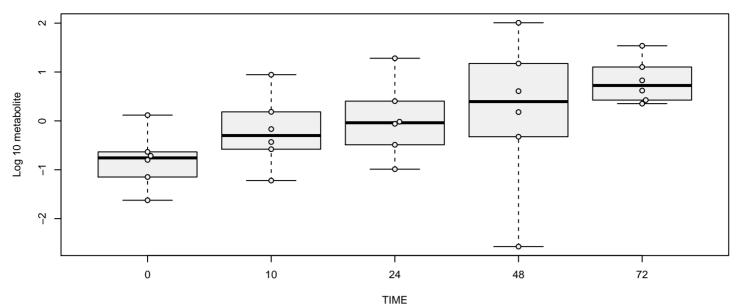
hit 427 metabolite 430 : 1–stearoyl–2–arachidonoyl–GPE (18:0/20:4) [cell] , p = 0.0034

1-stearoyl-2-arachidonoyl-GPI (18:0/20:4) [cell]



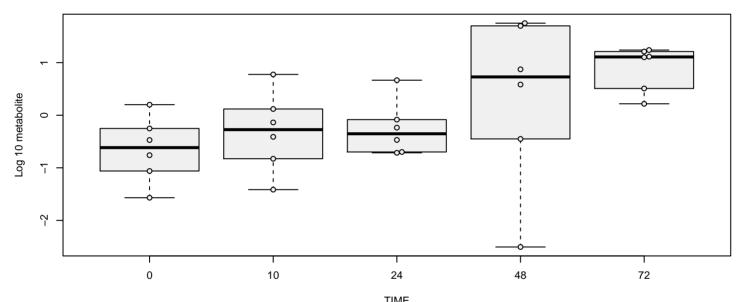
hit 428 metabolite 431 : 1-stearoyl-2-arachidonoyl-GPI (18:0/20:4) [cell] , p = 0.55

1-stearoyl-2-arachidonoyl-GPS (18:0/20:4) [cell]



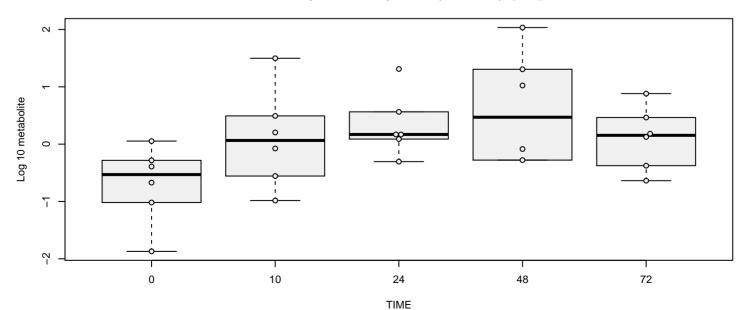
hit 429 metabolite 432 : 1-stearoyl-2-arachidonoyl-GPS (18:0/20:4) [cell] , p = 0.0041

1-stearoyl-2-linoleoyl-GPC (18:0/18:2)* [cell]



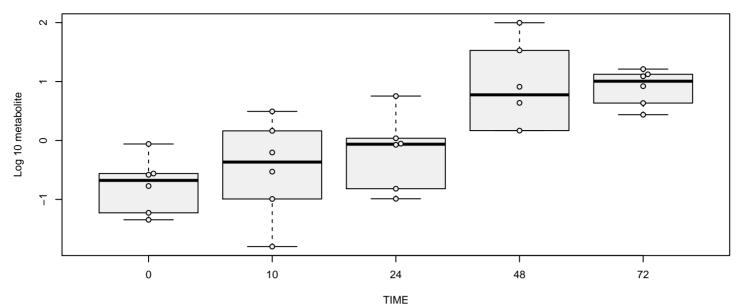
 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 430 metabolite 433 : 1-stearoyl-2-linoleoyl-GPC (18:0/18:2)* [cell] , $p=0.0016$}$

1-stearoyl-2-linoleoyl-GPE (18:0/18:2)* [cell]



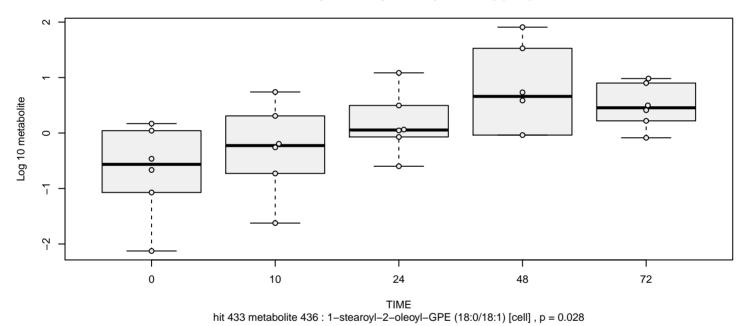
hit 431 metabolite 434 : 1-stearoyl-2-linoleoyl-GPE (18:0/18:2)* [cell] , p = 0.32

1-stearoyl-2-oleoyl-GPC (18:0/18:1) [cell]

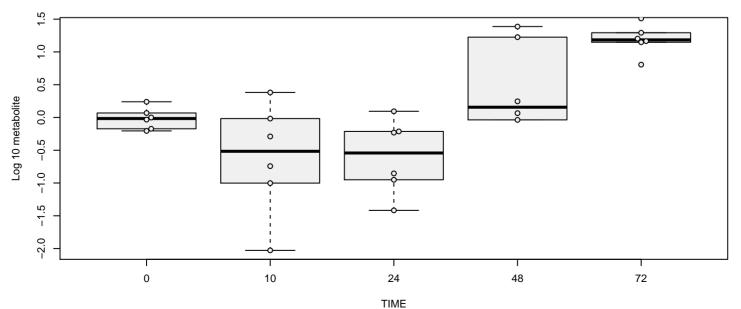


hit 432 metabolite 435 : 1-stearoyl-2-oleoyl-GPC (18:0/18:1) [cell] , p = 2e-04

1-stearoyl-2-oleoyl-GPE (18:0/18:1) [cell]

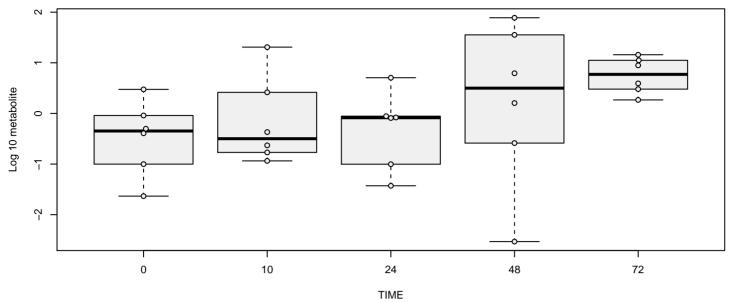


1-stearoyl-2-oleoyl-GPI (18:0/18:1)* [cell]



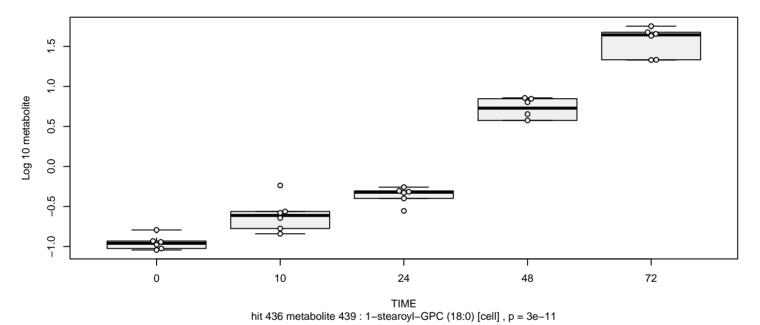
hit 434 metabolite 437 : 1-stearoyl-2-oleoyl-GPI (18:0/18:1)* [cell] , p = 0.0031

1-stearoyl-2-oleoyl-GPS (18:0/18:1) [cell]

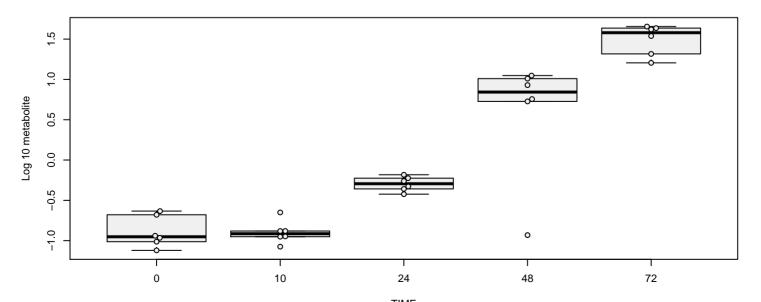


hit 435 metabolite 438 : 1-stearoyl-2-oleoyl-GPS (18:0/18:1) [cell] , p = 0.018

1-stearoyl-GPC (18:0) [cell]

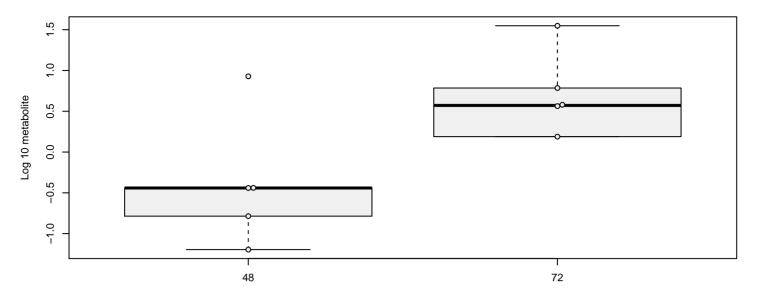


1-stearoyl-GPE (18:0) [cell]



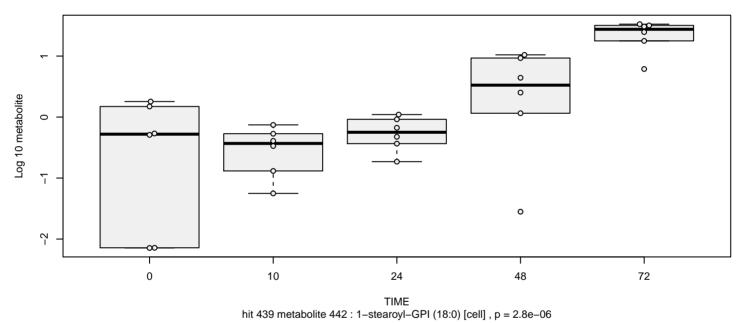
 $\label{eq:time} \begin{array}{c} \text{TIME} \\ \text{hit 437 metabolite 440 : 1--stearoyl-GPE (18:0) [cell] , p = 6.6e-14} \end{array}$

1-stearoyl-GPG (18:0) [cell]

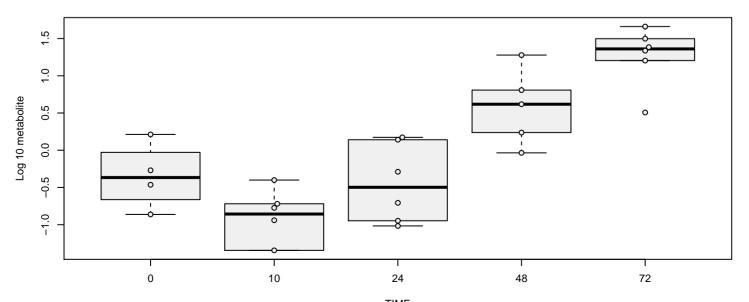


TIME hit 438 metabolite 441 : 1-stearoyl-GPG (18:0) [cell] , p = 0.26

1-stearoyl-GPI (18:0) [cell]

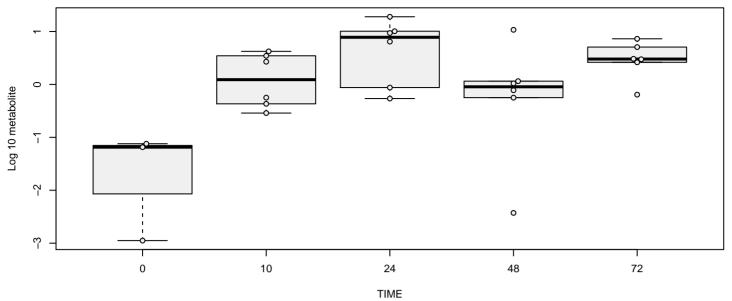


1-stearoyl-GPS (18:0)* [cell]



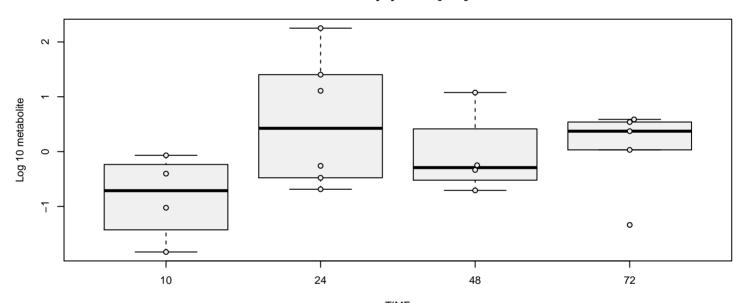
 $\label{eq:time} TIME \\ \mbox{hit 440 metabolite 443 : 1-stearoyl-GPS (18:0)* [cell] , p = 3.1e-07}$

2'-deoxyadenosine [cell]



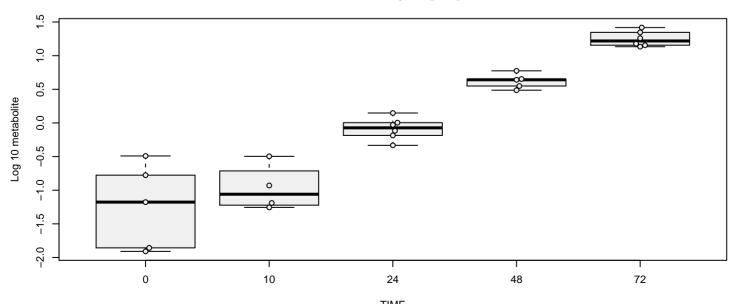
hit 441 metabolite 444 : 2'-deoxyadenosine [cell] , p = 0.11

2'-deoxycytidine [cell]



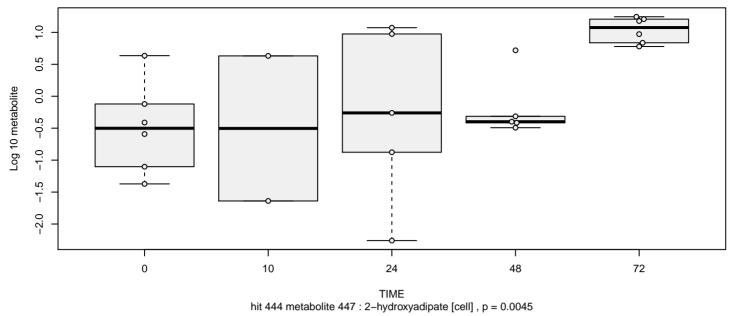
 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 442 metabolite 445 : 2'-deoxycytidine [cell] , p = 0.63 \\ \mbox{}$

2-aminoadipate [cell]

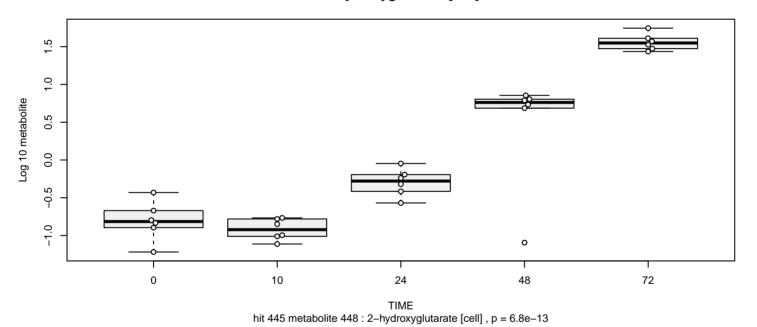


 $\label{eq:TIME} \mbox{hit 443 metabolite 446 : 2-aminoadipate [cell] , p = 6.7e-13}$

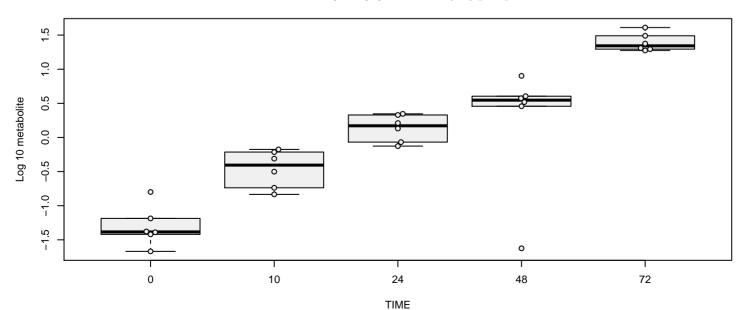
2-hydroxyadipate [cell]



2-hydroxyglutarate [cell]

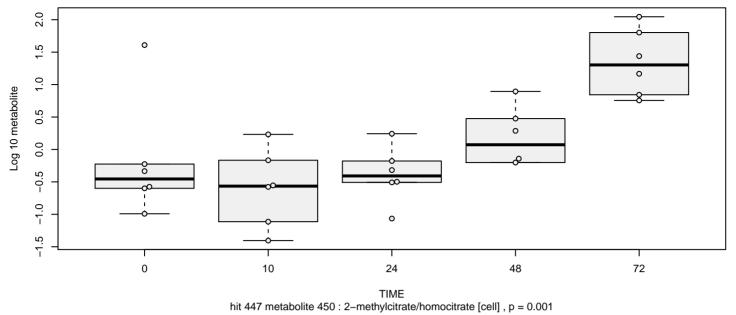


2-methylbutyrylcarnitine (C5) [cell]

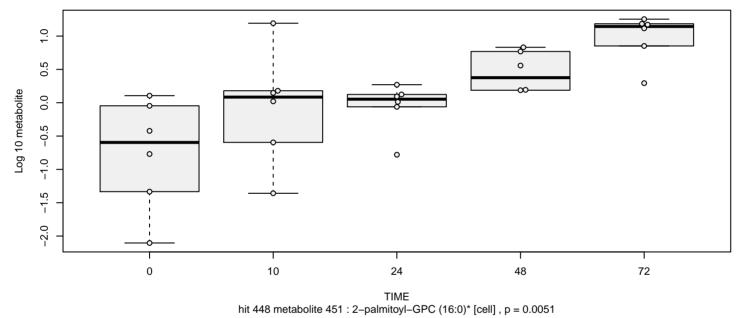


hit 446 metabolite 449 : 2-methylbutyrylcarnitine (C5) [cell] , p = 1.3e-09

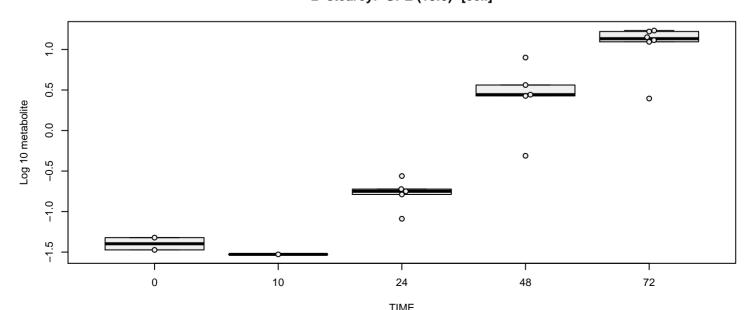
2-methylcitrate/homocitrate [cell]



2-palmitoyl-GPC (16:0)* [cell]

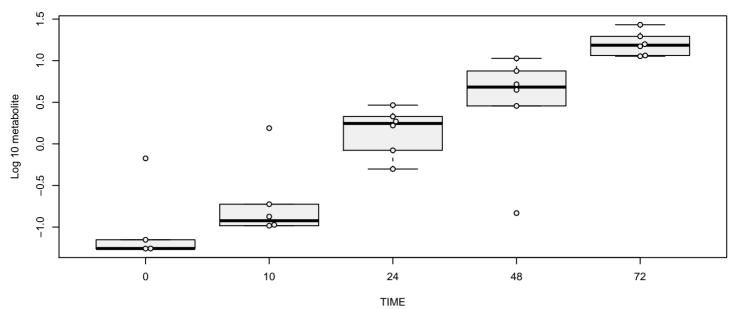


2-stearoyl-GPE (18:0)* [cell]



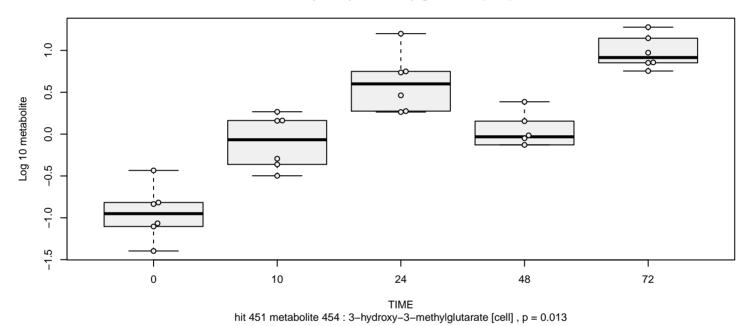
 $\label{eq:time} TIME \\ \mbox{hit 449 metabolite 452 : 2-stearoyl-GPE (18:0)* [cell] , p = 9.4e-10}$

3-(4-hydroxyphenyl)lactate [cell]

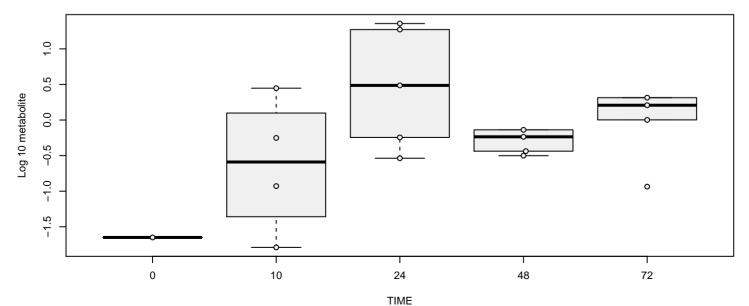


hit 450 metabolite 453 : 3-(4-hydroxyphenyl)lactate [cell] , p = 5.5e-09

3-hydroxy-3-methylglutarate [cell]

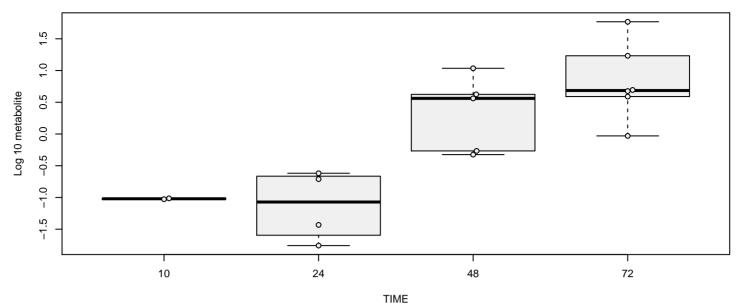


3-hydroxybutyrylcarnitine (1) [cell]



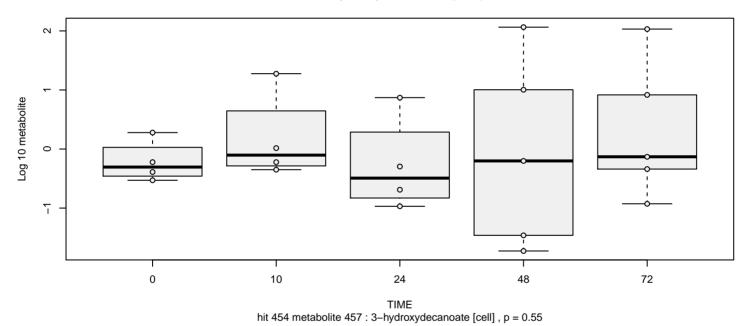
hit 452 metabolite 455 : 3-hydroxybutyrylcarnitine (1) [cell] , p = 0.16

3-hydroxybutyrylcarnitine (2) [cell]

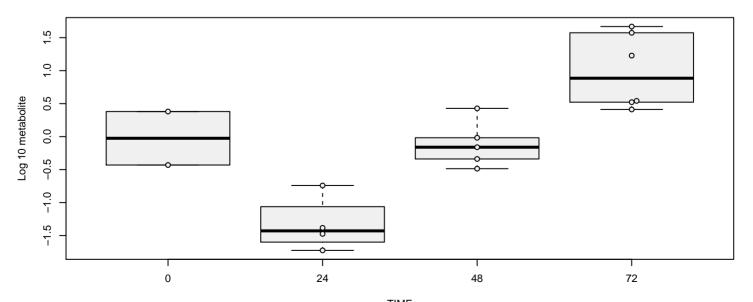


hit 453 metabolite 456 : 3-hydroxybutyrylcarnitine (2) [cell] , p = 5.5e-05

3-hydroxydecanoate [cell]

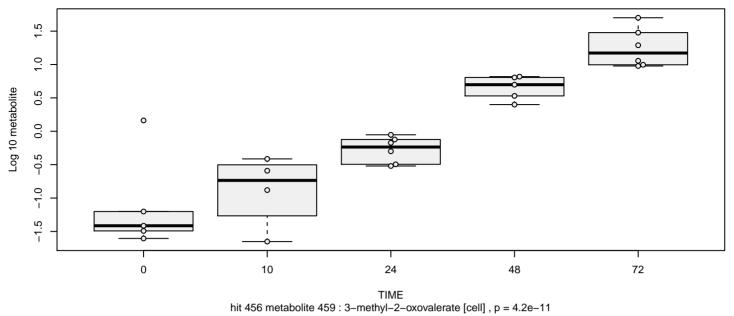


3-methyl-2-oxobutyrate [cell]

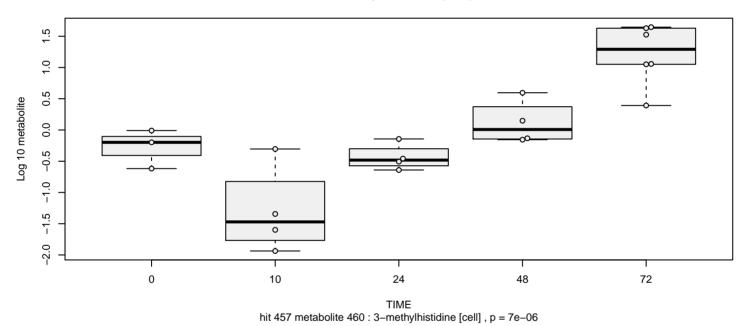


hit 455 metabolite 458 : 3-methyl-2-oxobutyrate [cell] , p = 0.003

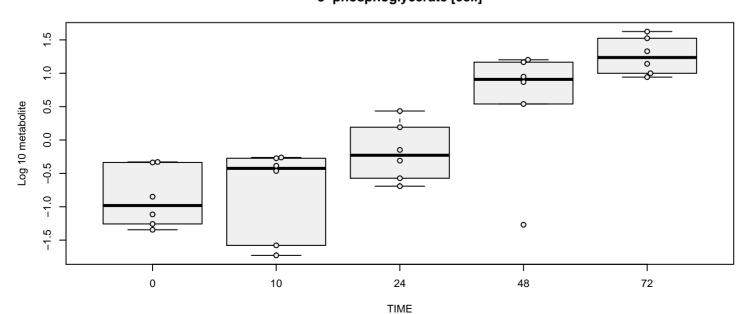
3-methyl-2-oxovalerate [cell]



3-methylhistidine [cell]

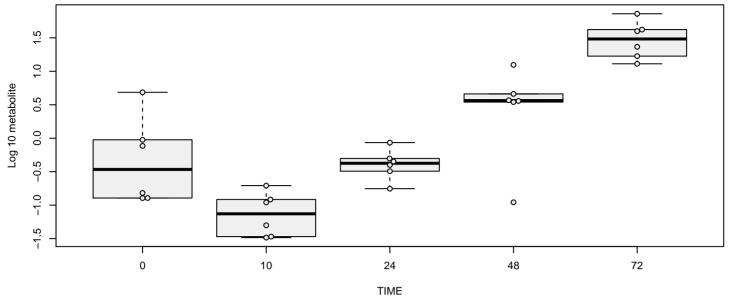


3-phosphoglycerate [cell]



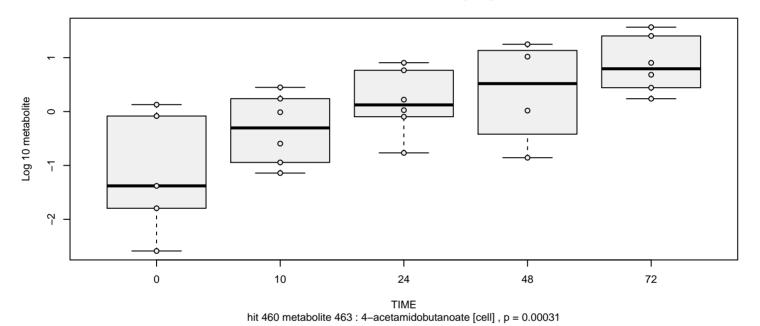
hit 458 metabolite 461 : 3–phosphoglycerate [cell] , p = 1.9e–08

3-ureidopropionate [cell]

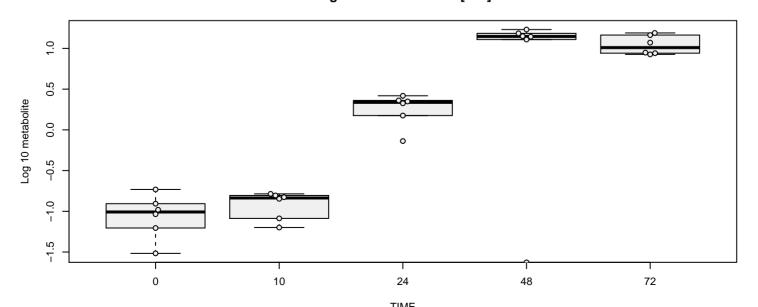


hit 459 metabolite 462 : 3-ureidopropionate [cell] , p = 5.3e-08

4-acetamidobutanoate [cell]

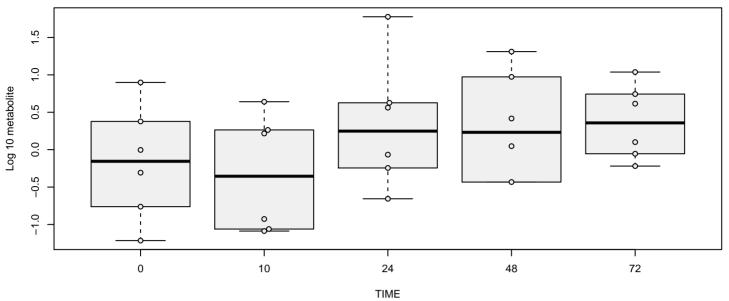


4-guanidinobutanoate [cell]



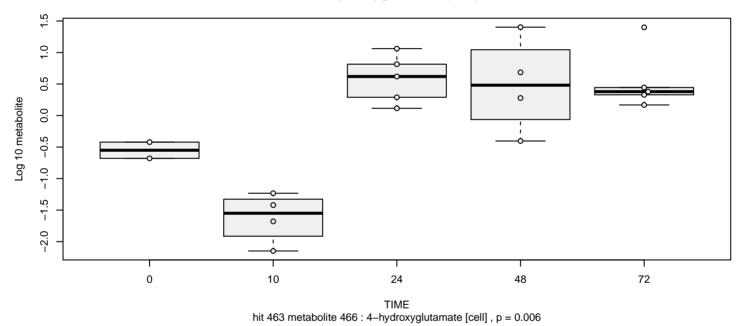
 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 461 metabolite 464 : 4-guanidinobutanoate [cell] , p = 3.5e-08 \\ \mbox{}$

4-hydroxy-nonenal-glutathione [cell]

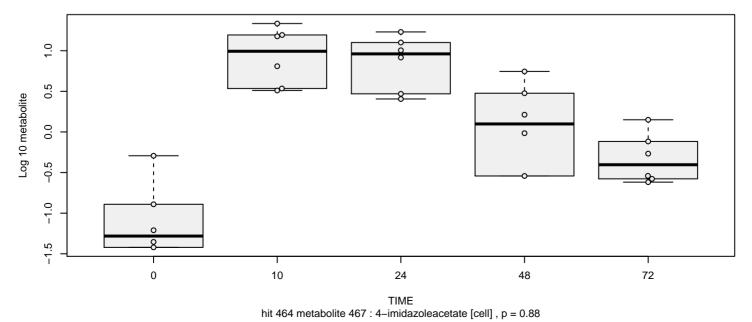


hit 462 metabolite 465 : 4–hydroxy–nonenal–glutathione [cell] , p = 0.38

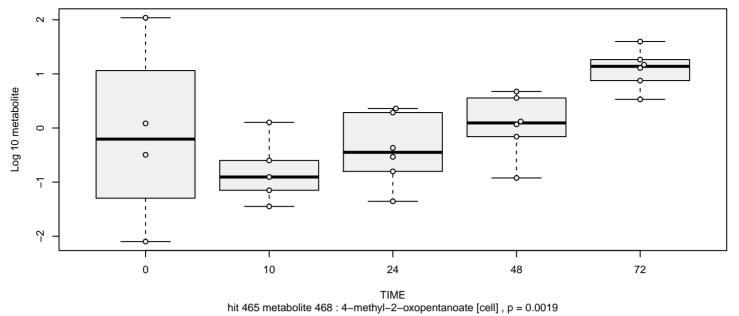
4-hydroxyglutamate [cell]



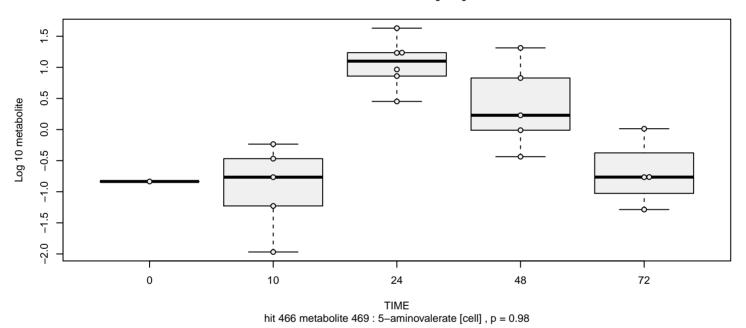
4-imidazoleacetate [cell]



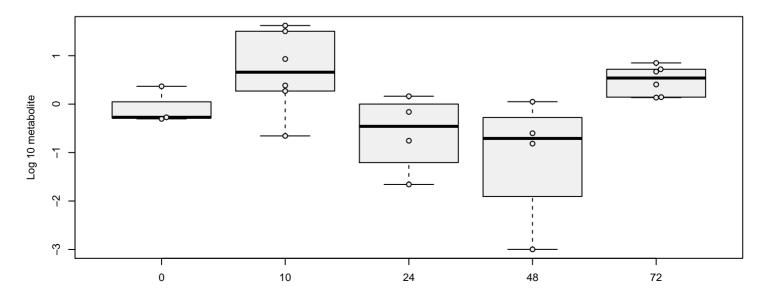
4-methyl-2-oxopentanoate [cell]



5-aminovalerate [cell]

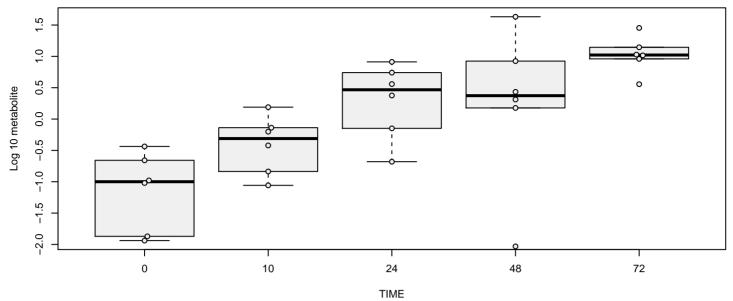


5-hydroxyindoleacetate [cell]



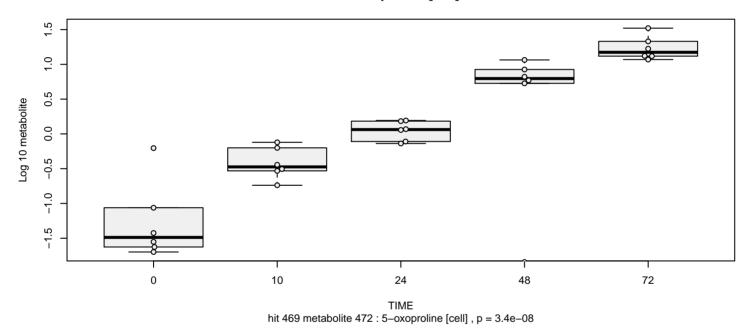
 $\label{eq:TIME} \mbox{TIME}$ hit 467 metabolite 470 : 5–hydroxyindoleacetate [cell] , p = 0.9

5-methylthioadenosine (MTA) [cell]

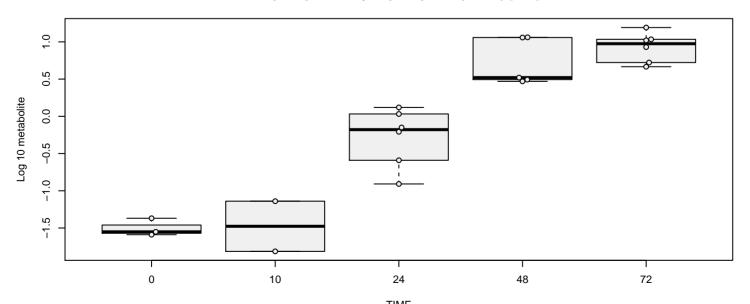


hit 468 metabolite 471 : 5-methylthioadenosine (MTA) [cell] , p = 2.7e-05

5-oxoproline [cell]

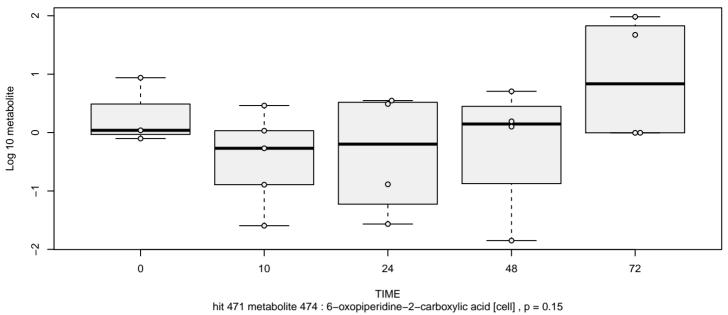


5-phosphoribosyl diphosphate (PRPP) [cell]

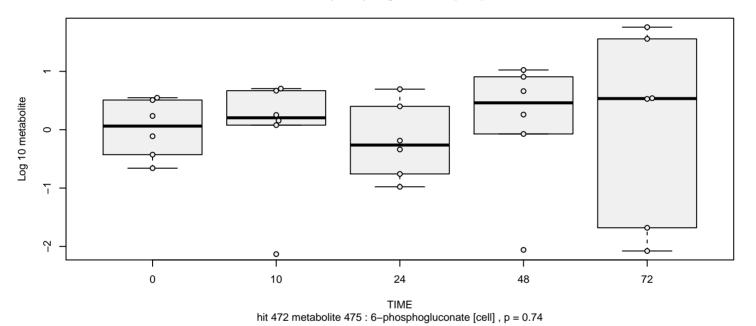


 $\label{total model} \begin{array}{c} \text{TIME} \\ \text{hit 470 metabolite 473: 5--phosphoribosyl diphosphate (PRPP) [cell] , p = 3.6e-09 \end{array}$

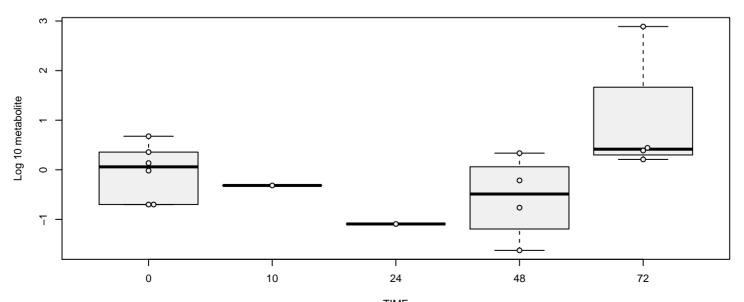
6-oxopiperidine-2-carboxylic acid [cell]



6-phosphogluconate [cell]

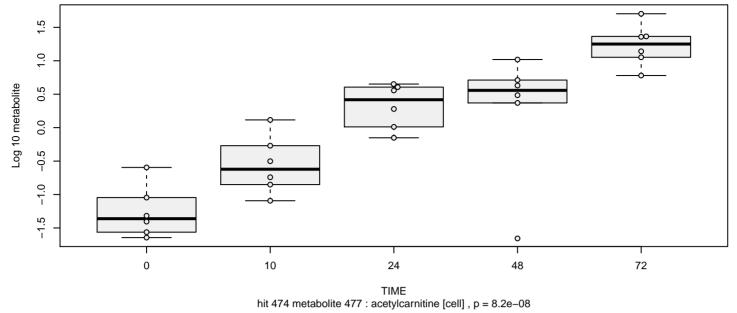


acetyl CoA [cell]

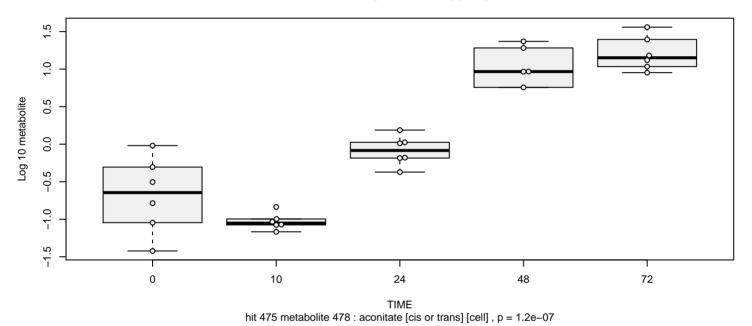


 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 473 metabolite 476 : acetyl CoA [cell] , p = 0.24 }$

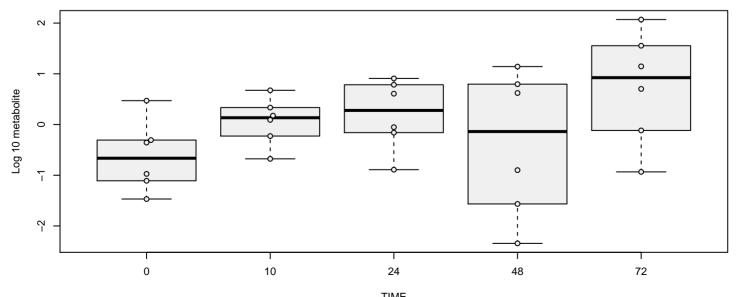
acetylcarnitine [cell]



aconitate [cis or trans] [cell]

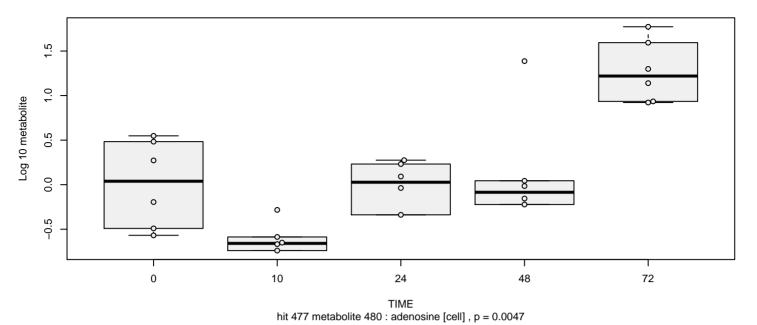


adenine [cell]

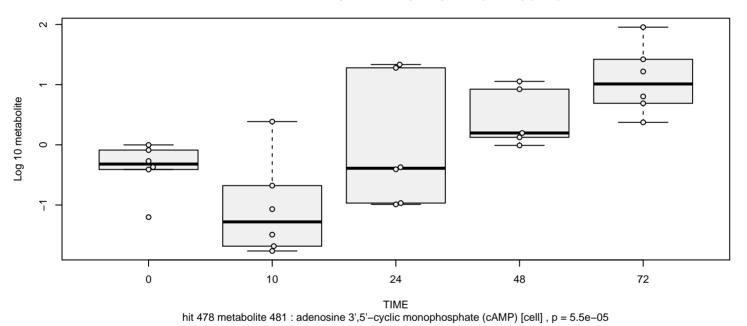


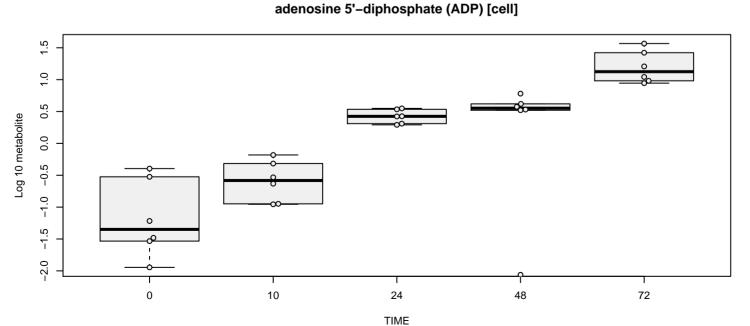
 $\label{eq:time} \begin{array}{c} \text{TIME} \\ \text{hit 476 metabolite 479 : adenine [cell] , p = 0.09} \end{array}$

adenosine [cell]



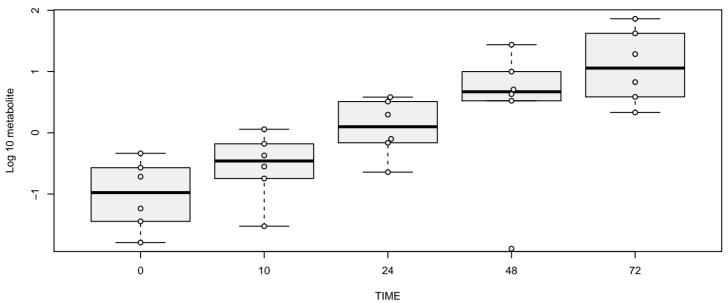
adenosine 3',5'-cyclic monophosphate (cAMP) [cell]





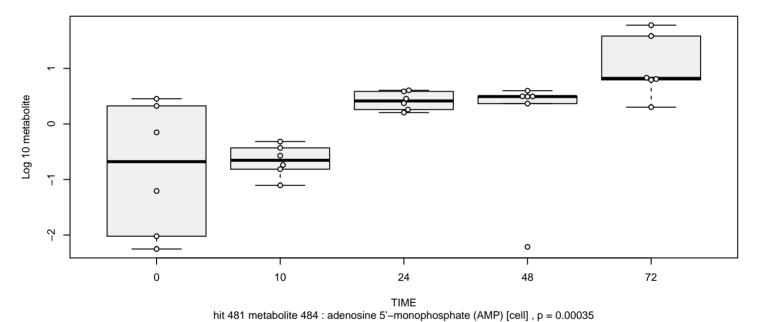
hit 479 metabolite 482 : adenosine 5'-diphosphate (ADP) [cell] , p = 1e-06

adenosine 5'-diphosphoribose (ADP-ribose) [cell]

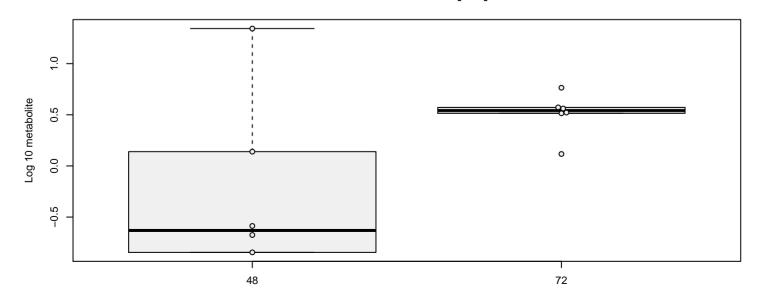


hit 480 metabolite 483 : adenosine 5'-diphosphoribose (ADP-ribose) [cell] , p = 4.6e-06

adenosine 5'-monophosphate (AMP) [cell]

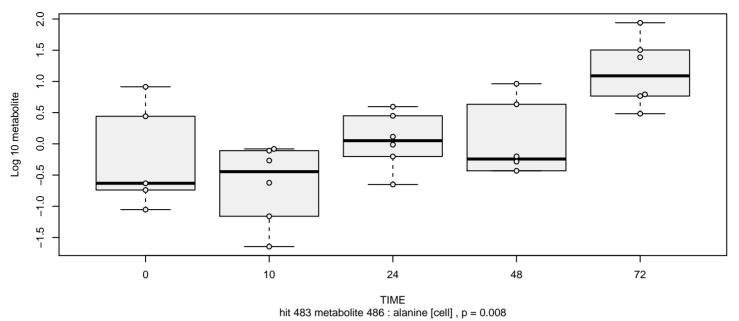


AICA ribonucleotide [cell]

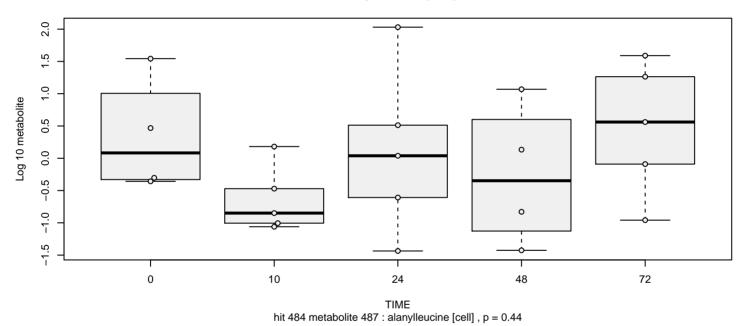


 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 482 metabolite 485 : AICA ribonucleotide [cell] , p = 0.076 \\ \mbox{}$

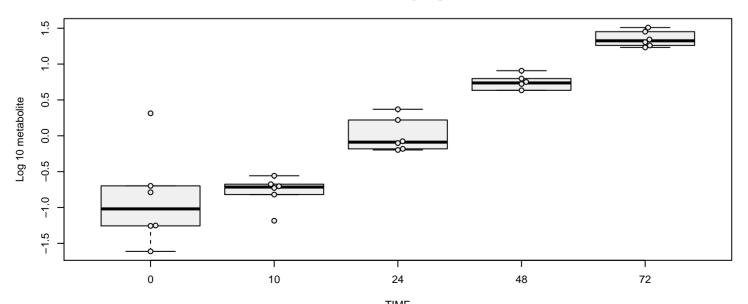
alanine [cell]



alanylleucine [cell]

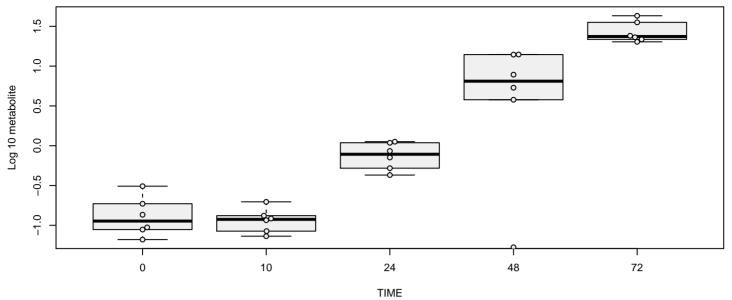


allantoin [cell]



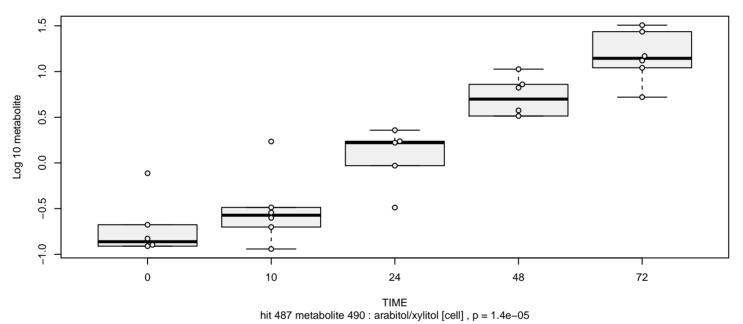
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 485 metabolite 488 : allantoin [cell] , p = 5.8e-08} \end{split}$$

alpha-ketoglutarate [cell]

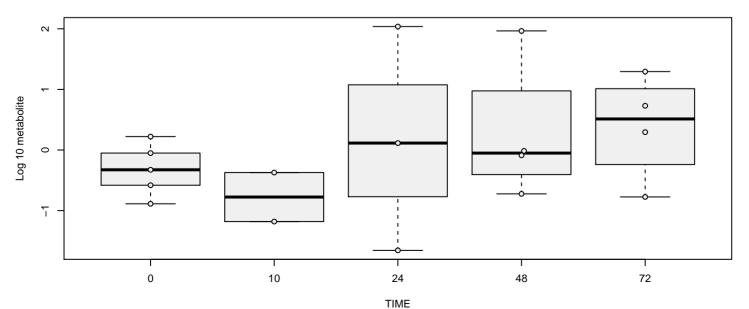


hit 486 metabolite 489 : alpha–ketoglutarate [cell] , p = 9.6e-12

arabitol/xylitol [cell]

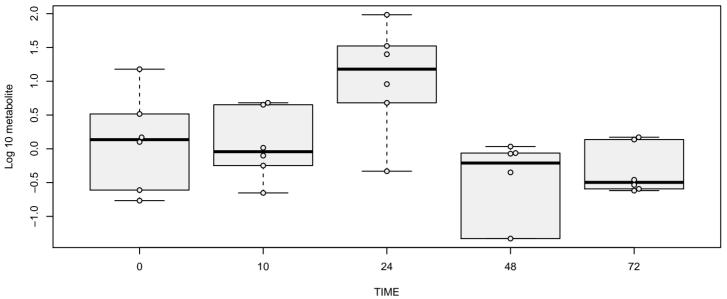


arabonate/xylonate [cell]



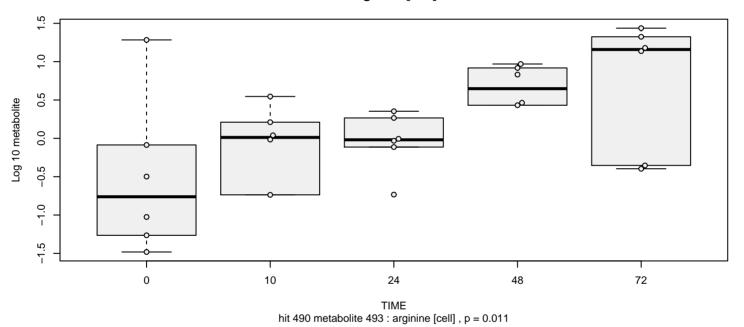
hit 488 metabolite 491 : arabonate/xylonate [cell] , p = 0.17

arachidonate (20:4n6) [cell]

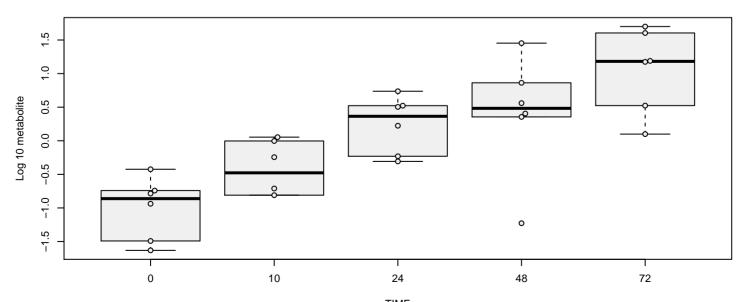


hit 489 metabolite 492 : arachidonate (20:4n6) [cell] , p = 0.1

arginine [cell]

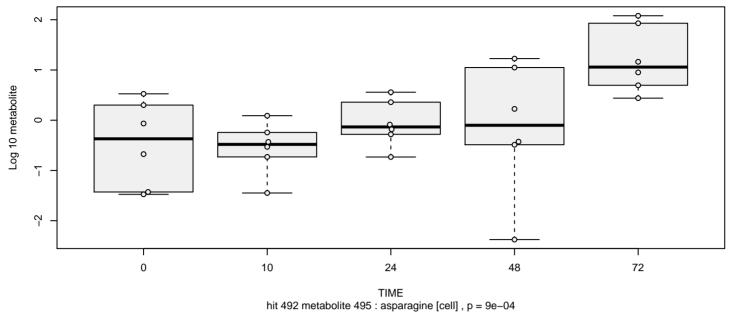


argininosuccinate [cell]

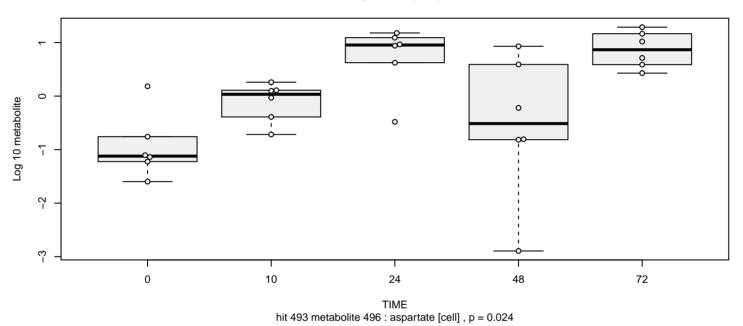


 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 491 metabolite 494: argininosuccinate [cell] , $p = 5e-06$} \\$

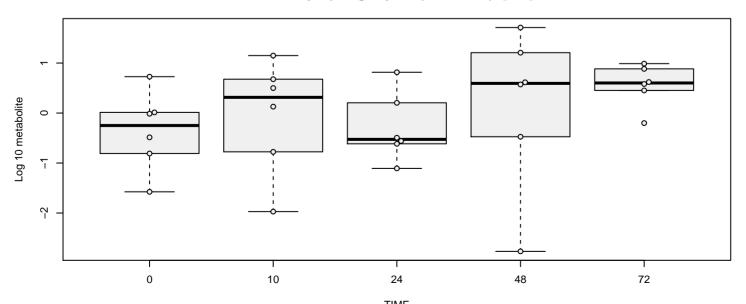
asparagine [cell]



aspartate [cell]

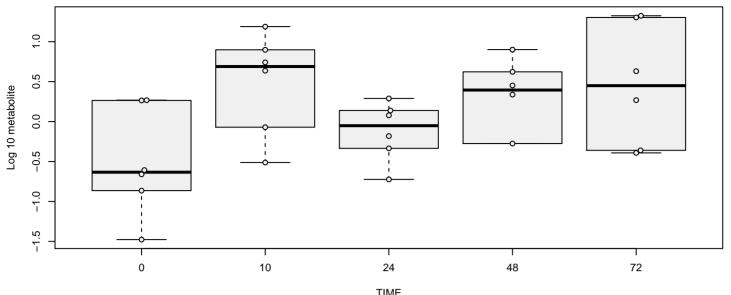


behenoyl sphingomyelin (d18:1/22:0)* [cell]



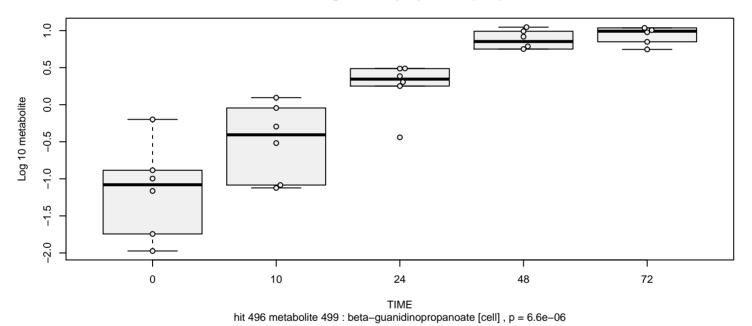
 $\label{eq:time} TIME \\ \mbox{hit 494 metabolite 497: behenoyl sphingomyelin (d18:1/22:0)* [cell] , p = 0.1 \\ \mbox{}$

benzoate [cell]

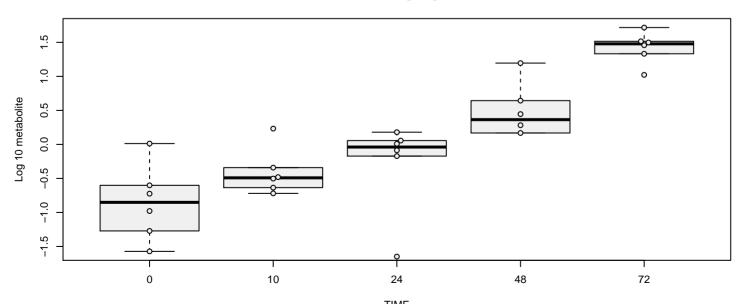


$\label{eq:TIME} \begin{array}{c} \text{TIME} \\ \text{hit 495 metabolite 498 : benzoate [cell] , p = 0.4} \end{array}$

beta-guanidinopropanoate [cell]

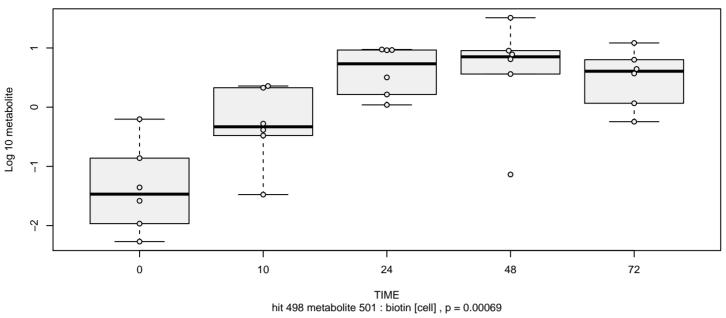


betaine [cell]

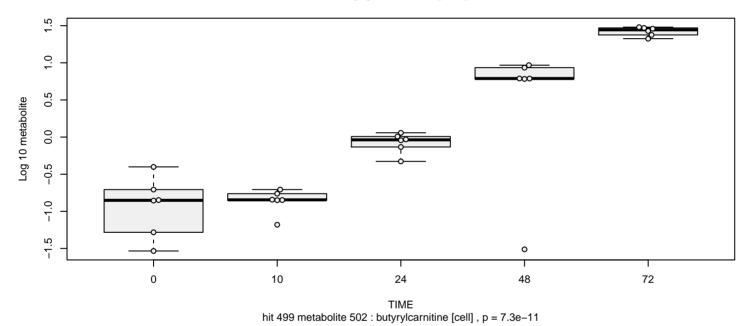


 $\label{eq:TIME} \begin{array}{c} \text{TIME} \\ \text{hit 497 metabolite 500 : betaine [cell] , p = 1.2e-06} \end{array}$

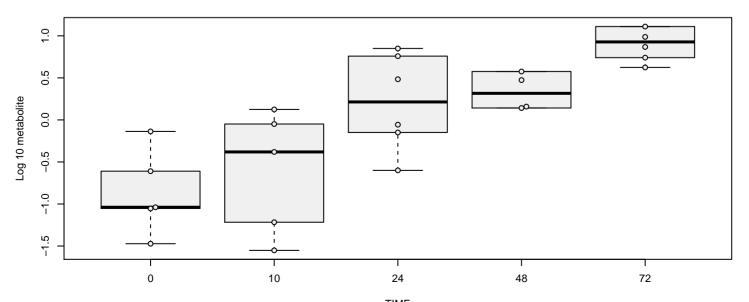
biotin [cell]



butyrylcarnitine [cell]

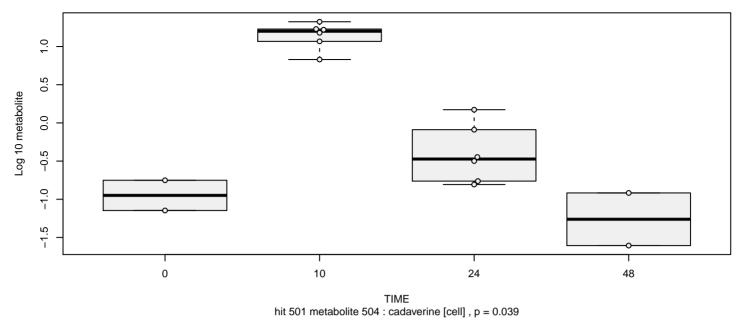


C-glycosyltryptophan [cell]

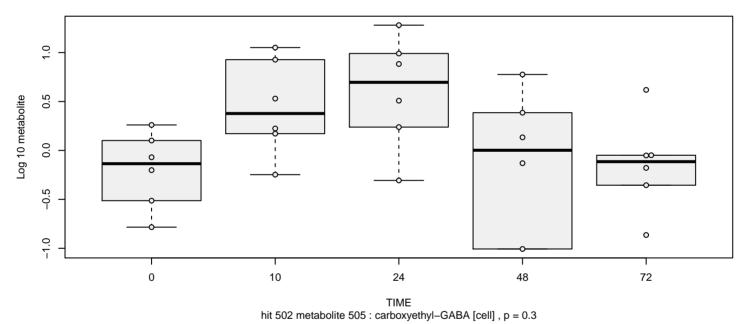


 $\label{eq:TIME} \mbox{hit 500 metabolite 503: C-glycosyltryptophan [cell] , $p = 0.00055$}$

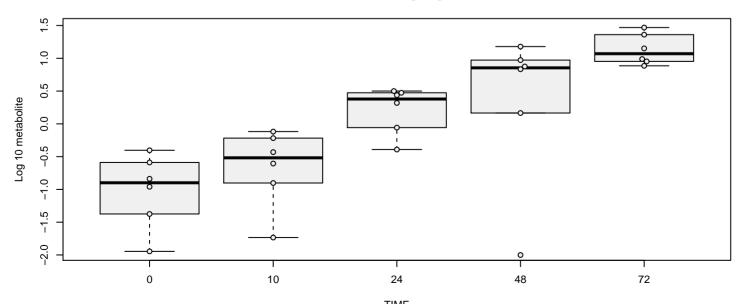
cadaverine [cell]



carboxyethyl-GABA [cell]

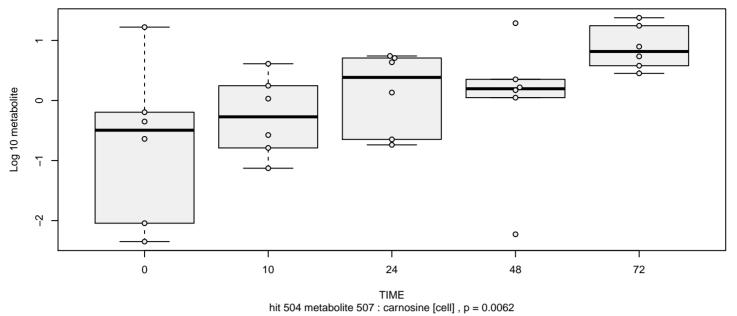


carnitine [cell]

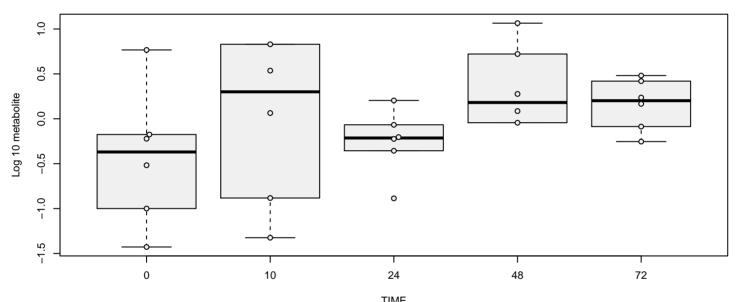


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 503 metabolite 506 : carnitine [cell] , p = 1.9e-06} \end{split}$$

carnosine [cell]

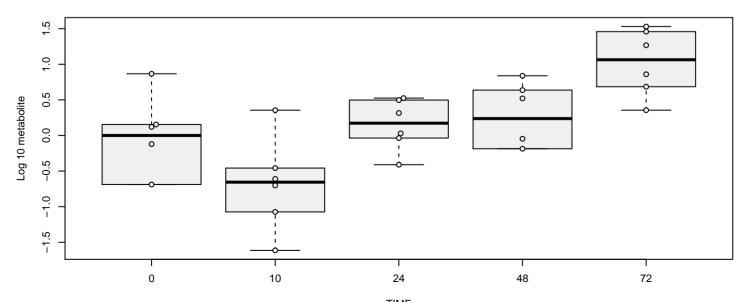


cholesterol [cell]



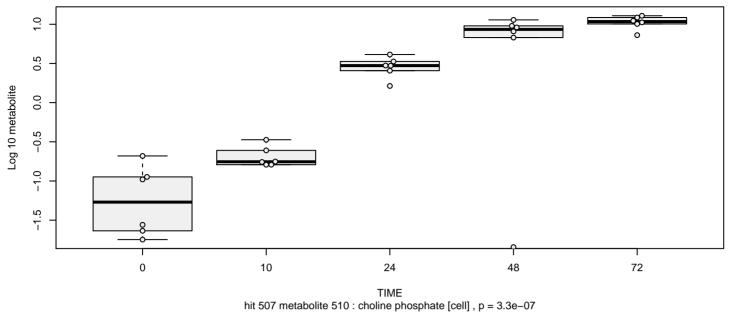
 $\label{eq:time} \begin{array}{c} \text{TIME} \\ \text{hit 505 metabolite 508 : cholesterol [cell] , p = 0.64} \end{array}$

choline [cell]

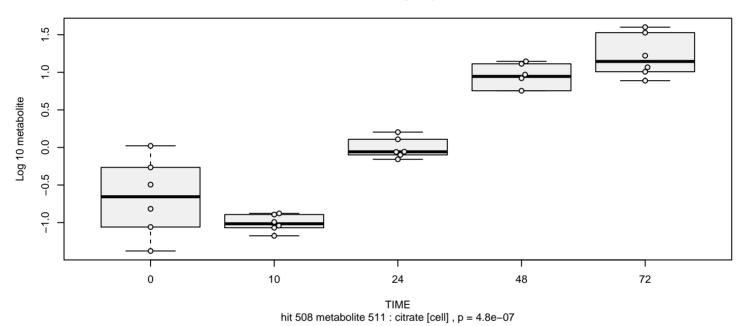


 $\label{eq:time} \begin{array}{c} \text{TIME} \\ \text{hit 506 metabolite 509 : choline [cell] , } p = 0.0076 \end{array}$

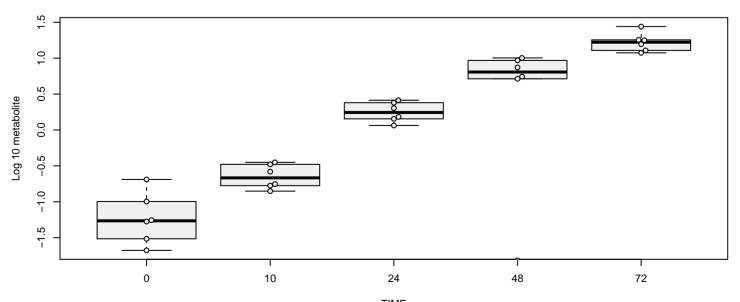
choline phosphate [cell]



citrate [cell]

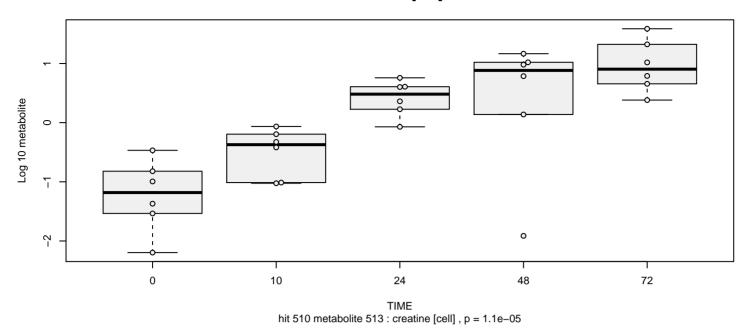


coenzyme A [cell]

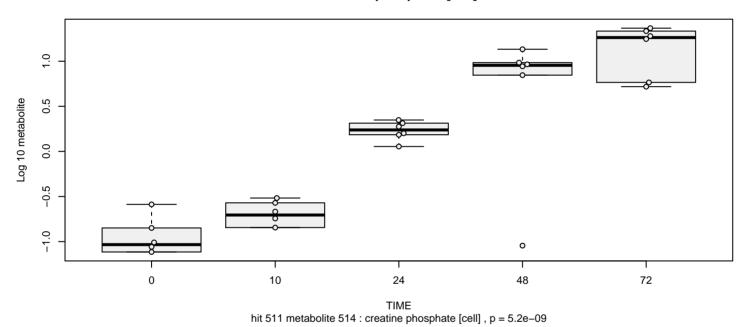


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 509 metabolite 512: coenzyme A [cell] , p = 1e-08} \end{split}$$

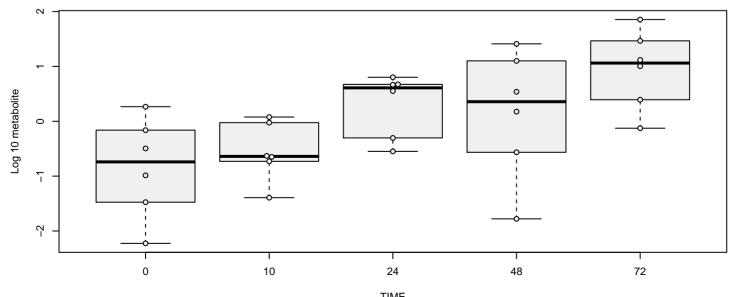
creatine [cell]



creatine phosphate [cell]

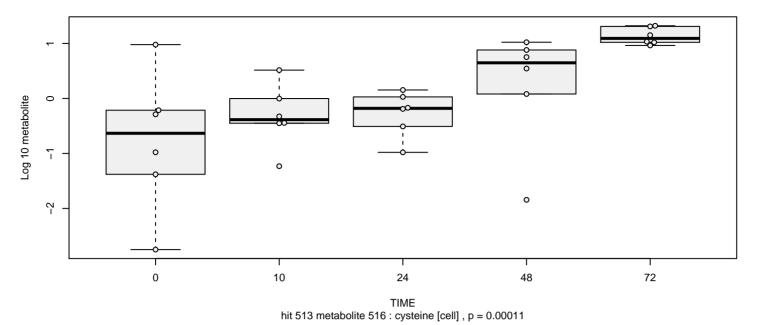


creatinine [cell]

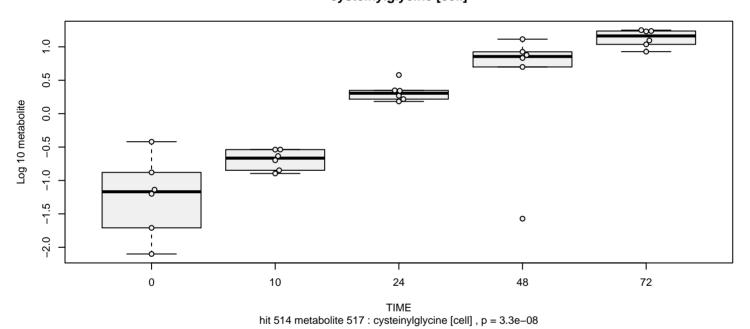


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 512 metabolite 515 : creatinine [cell] , p = 0.00044} \end{split}$$

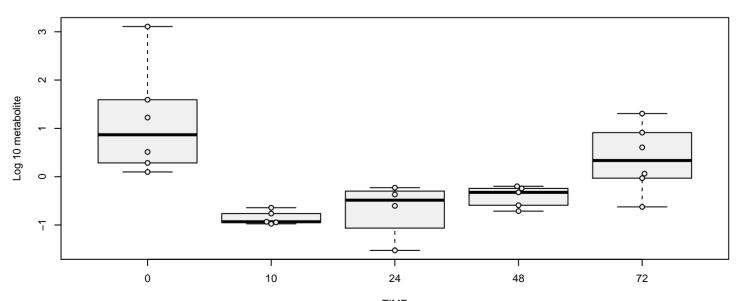
cysteine [cell]



cysteinylglycine [cell]

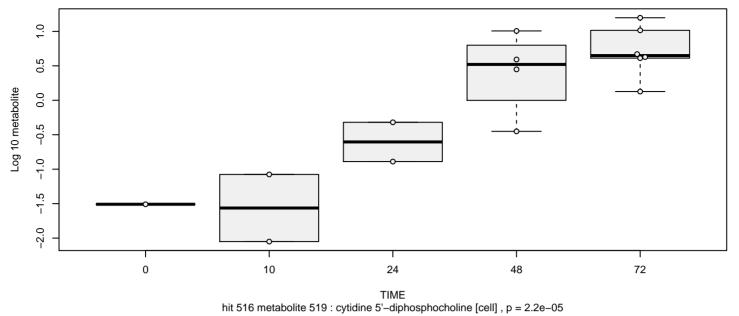




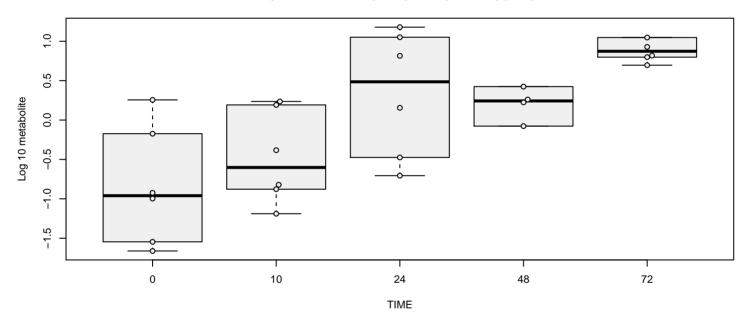


 $\label{eq:time} \begin{array}{c} \text{TIME} \\ \text{hit 515 metabolite 518 : cytidine [cell] , p = 0.75} \end{array}$

cytidine 5'-diphosphocholine [cell]

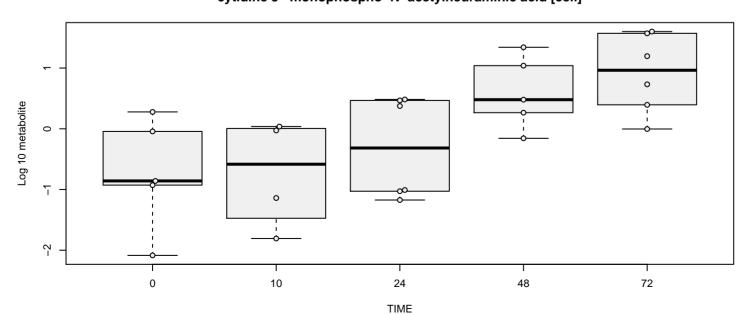


cytidine 5'-monophosphate (5'-CMP) [cell]



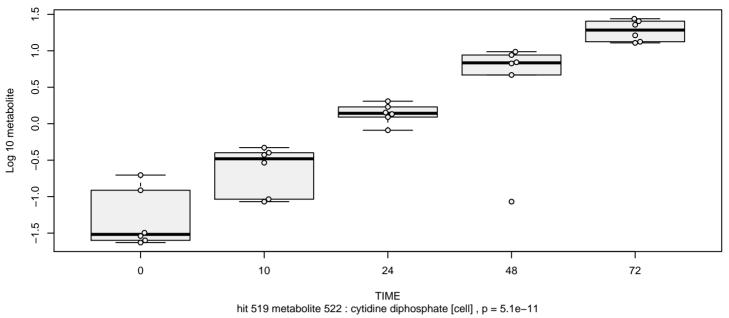
hit 517 metabolite 520 : cytidine 5'-monophosphate (5'-CMP) [cell] , p = 0.00085

cytidine 5'-monophospho-N-acetylneuraminic acid [cell]

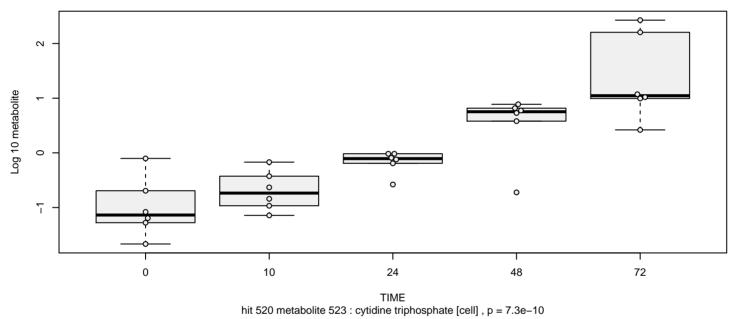


hit 518 metabolite 521 : cytidine 5'-monophospho-N-acetylneuraminic acid [cell] , p = 0.00011

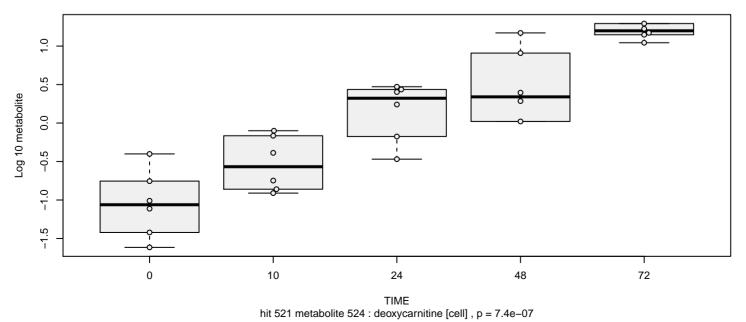
cytidine diphosphate [cell]



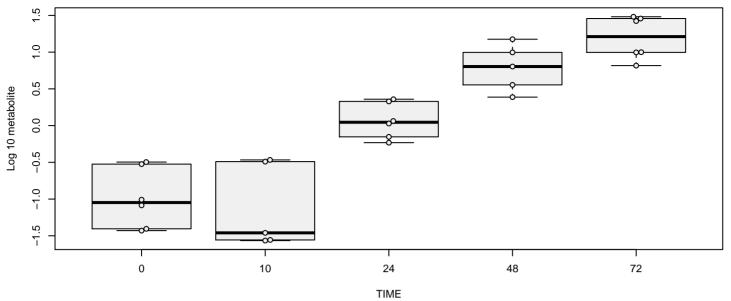
cytidine triphosphate [cell]



deoxycarnitine [cell]

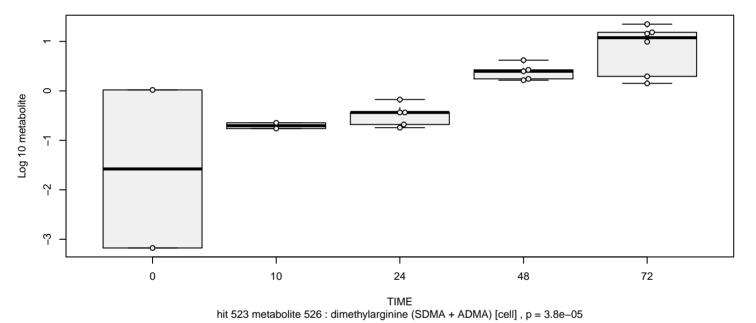


dihydroxyacetone phosphate (DHAP) [cell]

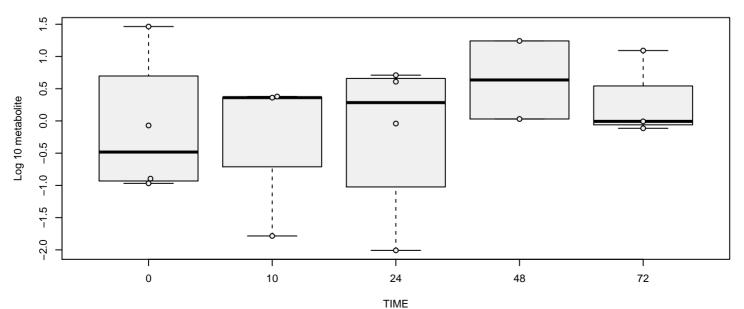


hit 522 metabolite 525 : dihydroxyacetone phosphate (DHAP) [cell] , p = 6.3e-11

dimethylarginine (SDMA + ADMA) [cell]

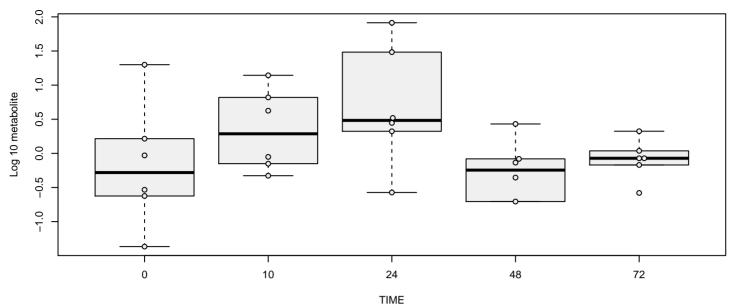


dimethylglycine [cell]



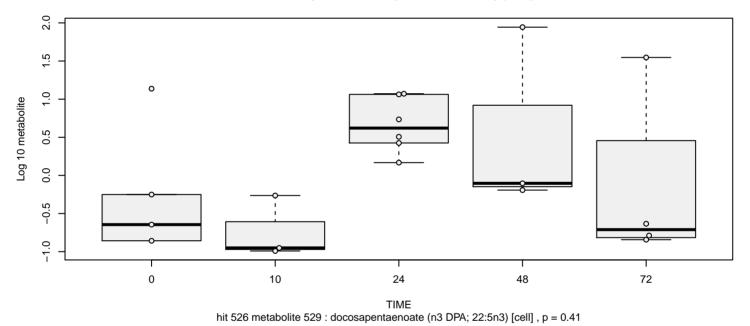
hit 524 metabolite 527 : dimethylglycine [cell] , p = 0.34

docosahexaenoate (DHA; 22:6n3) [cell]

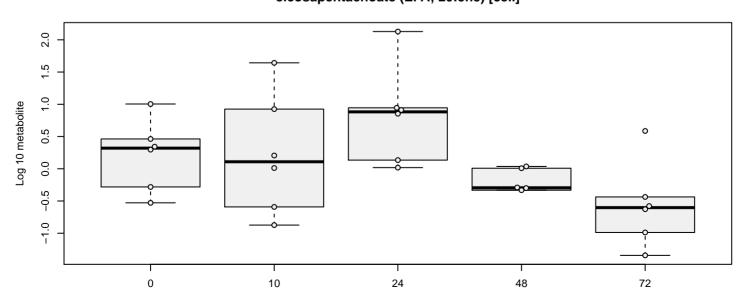


hit 525 metabolite 528 : docosahexaenoate (DHA; 22:6n3) [cell] , p = 0.34

docosapentaenoate (n3 DPA; 22:5n3) [cell]

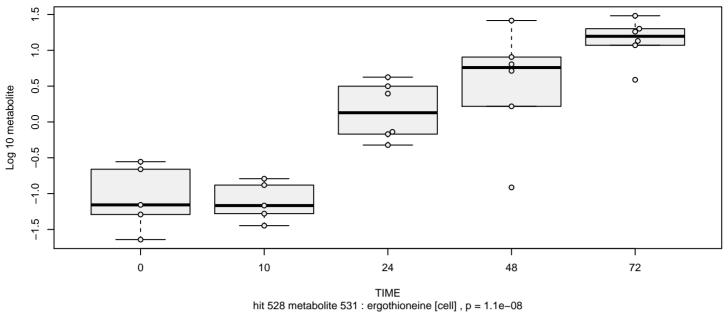


eicosapentaenoate (EPA; 20:5n3) [cell]

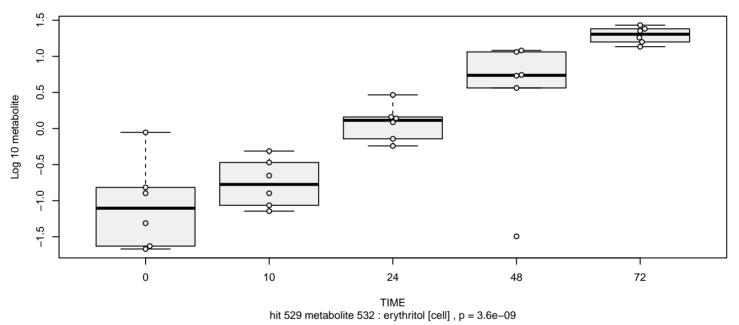


 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 527 metabolite 530 : eicosapentaenoate (EPA; 20:5n3) [cell] , p = 0.026 \\ \mbox{}$

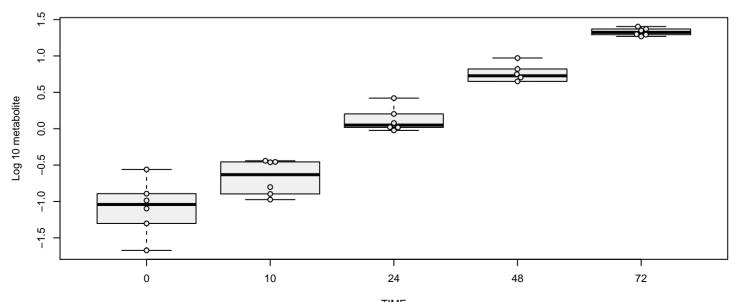
ergothioneine [cell]



erythritol [cell]

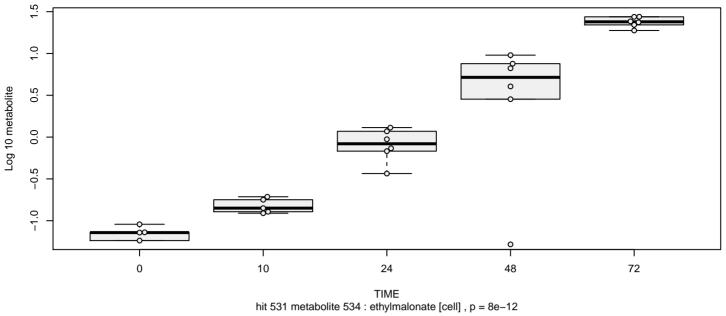


erythronate* [cell]

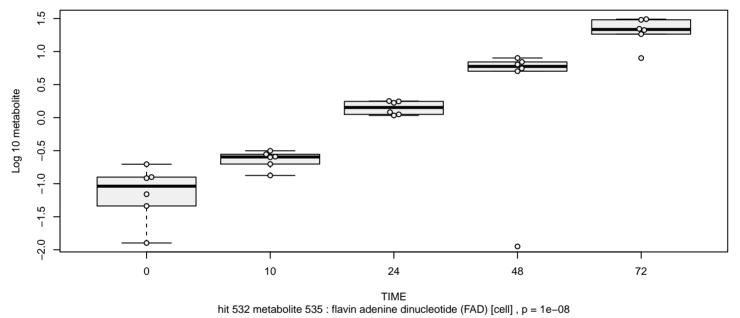


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 530 metabolite 533 : erythronate* [cell] , p = 1.4e-08} \end{split}$$

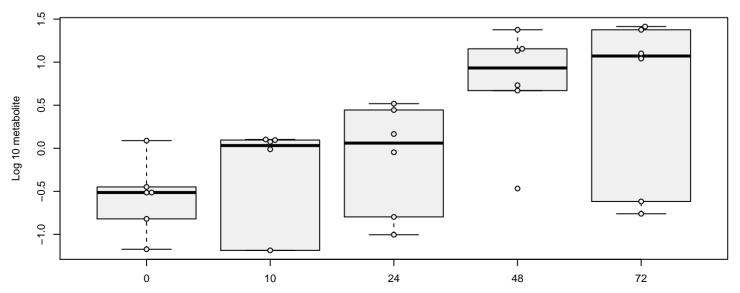
ethylmalonate [cell]



flavin adenine dinucleotide (FAD) [cell]

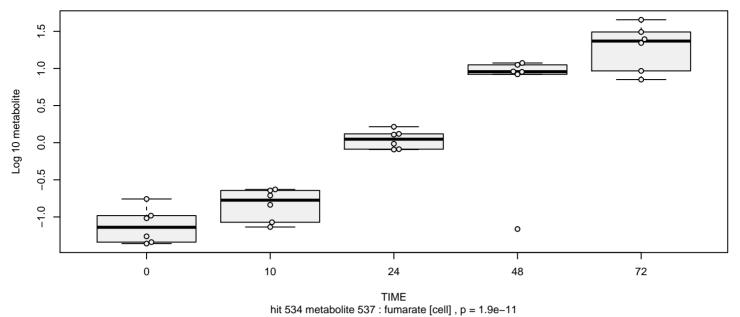


fructose [cell]



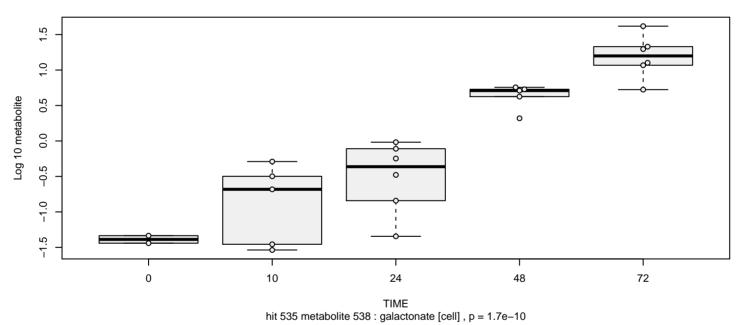
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 533 metabolite 536 : fructose [cell] , p = 0.0019} \end{split}$$

fumarate [cell]

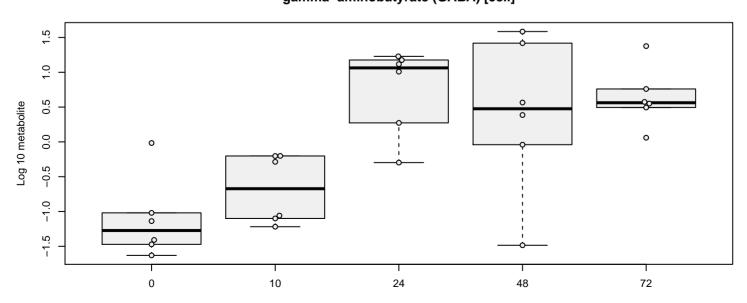


Thetabolite 337 . Idiliarate [cell] , p = 1.96-11

galactonate [cell]

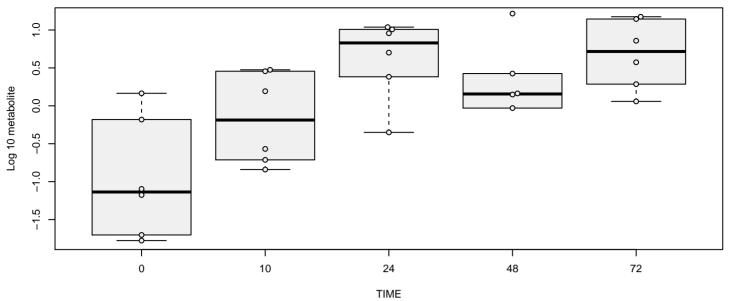


gamma-aminobutyrate (GABA) [cell]



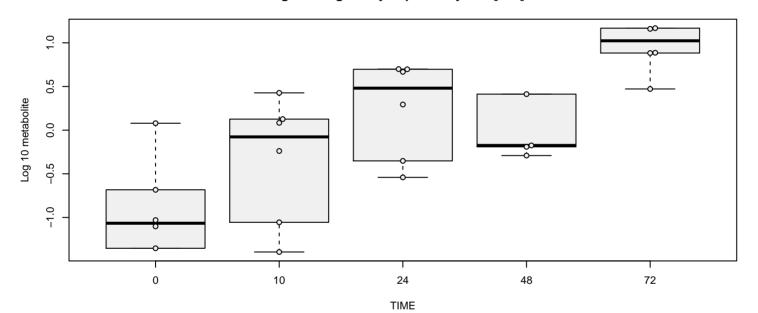
 $\label{eq:TIME} \mbox{TIME} $$ \mbox{hit 536 metabolite 539 : gamma-aminobutyrate (GABA) [cell] , p = 0.00053 $$ \mbox{}$

gamma-carboxyglutamate [cell]



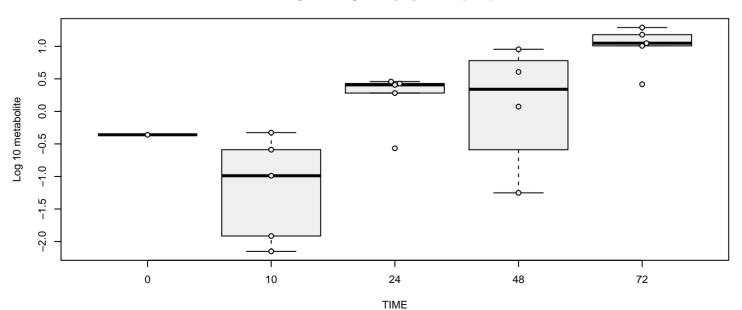
hit 537 metabolite 540 : gamma-carboxyglutamate [cell] , p = 0.021

gamma-glutamyl-epsilon-lysine [cell]



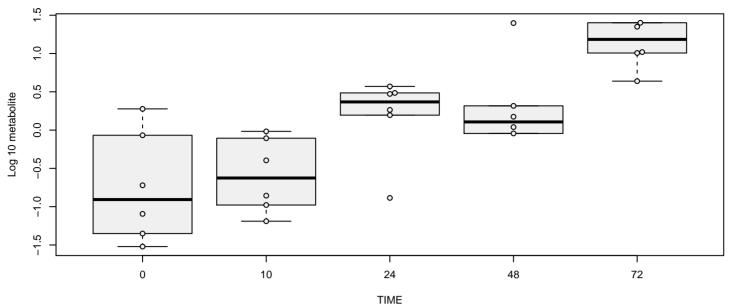
hit 538 metabolite 541 : gamma-glutamyl-epsilon-lysine [cell] , p = 2.1e-05

gamma-glutamylcysteine [cell]



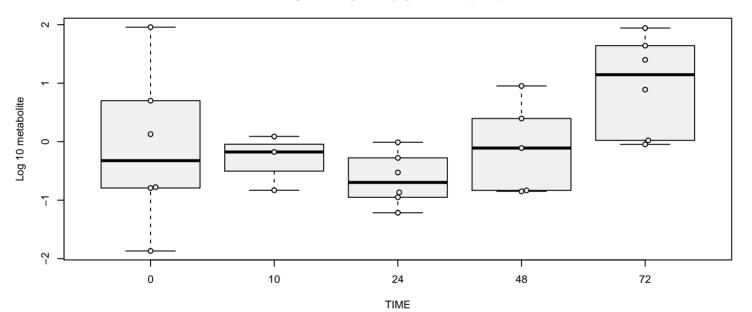
hit 539 metabolite 542 : gamma–glutamylcysteine [cell] , p = 0.00066

gamma-glutamylglutamate [cell]



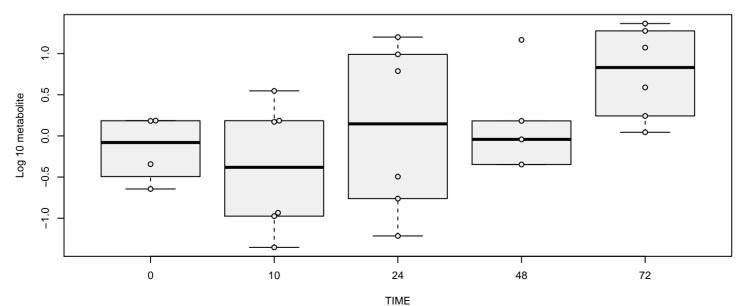
hit 540 metabolite 543 : gamma–glutamylglutamate [cell] , p = 1e-04

gamma-glutamylglutamine [cell]



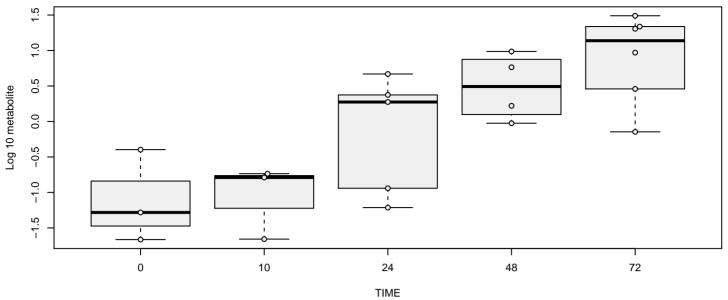
hit 541 metabolite 544 : gamma–glutamylglutamine [cell] , p = 0.026

gamma-glutamylisoleucine* [cell]



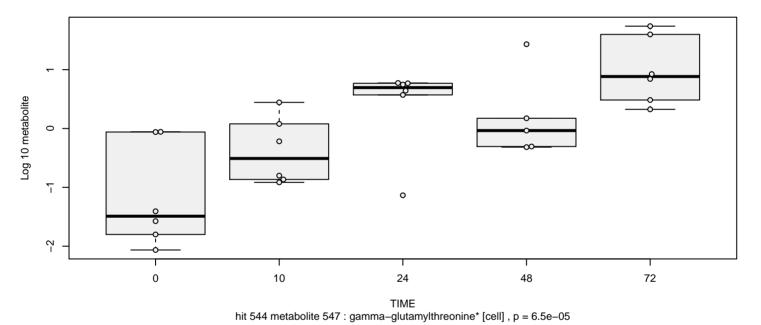
hit 542 metabolite 545 : gamma–glutamylisoleucine* [cell] , p = 0.11

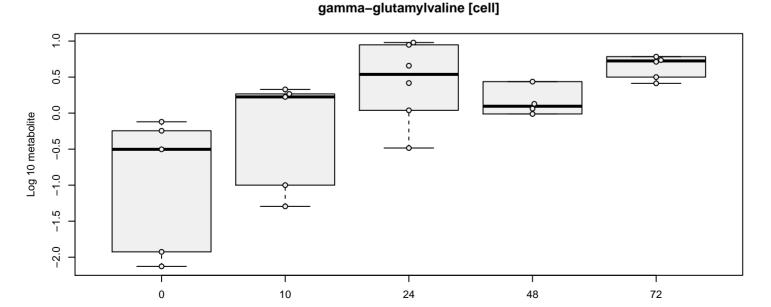
gamma-glutamylleucine [cell]



hit 543 metabolite 546 : gamma–glutamylleucine [cell] , p = 2.2e-05

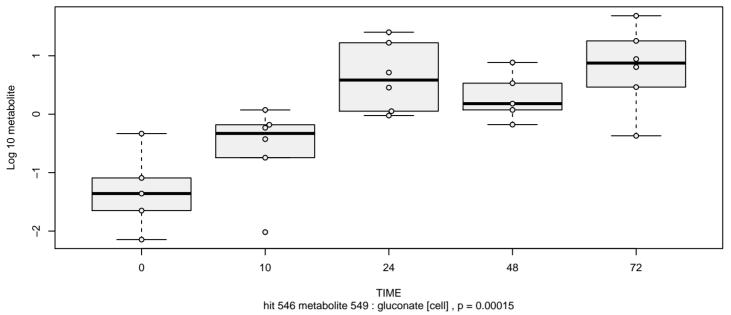
gamma-glutamylthreonine* [cell]



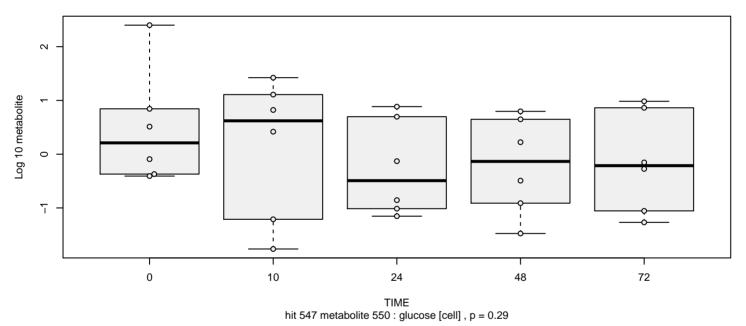


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 545 metabolite 548 : gamma-glutamylvaline [cell] , p = 0.011} \end{split}$$

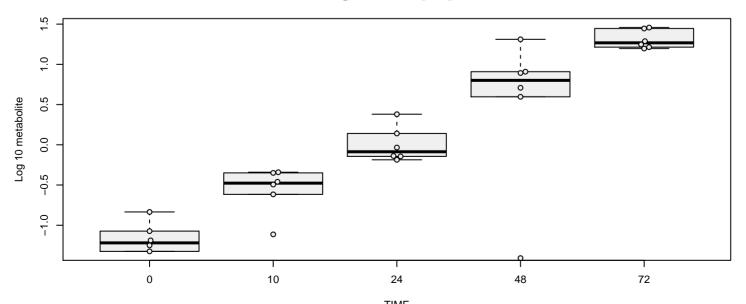
gluconate [cell]



glucose [cell]

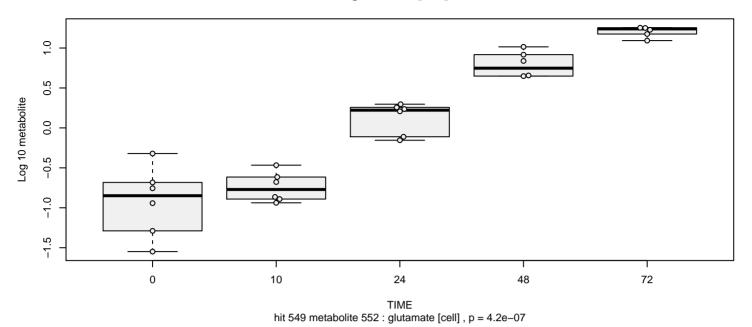


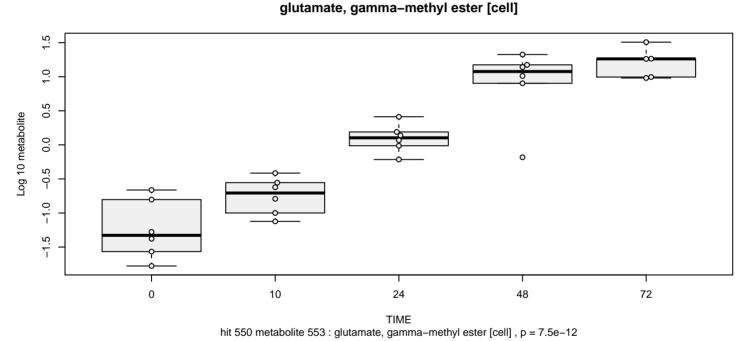
glucuronate [cell]



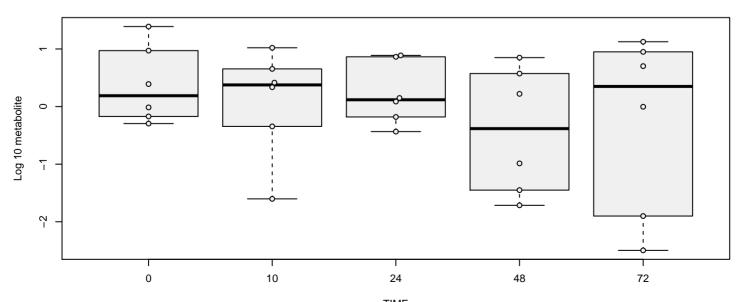
 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 548 metabolite 551 : glucuronate [cell] , p = 2.2e-10} \\$

glutamate [cell]



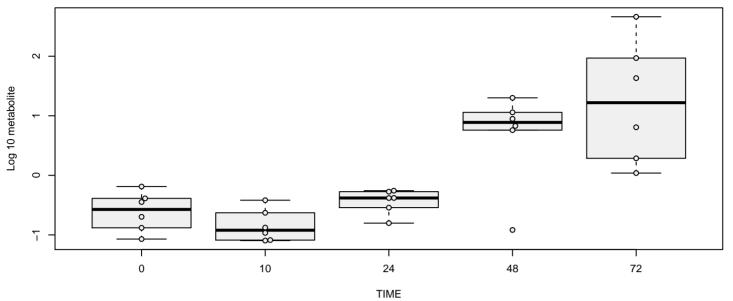


glutamine [cell]



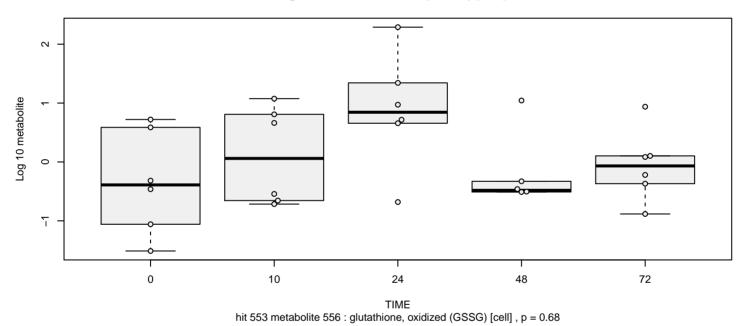
$$\label{eq:TIME} \begin{split} &\text{TIME}\\ &\text{hit 551 metabolite 554: glutamine [cell] , p = 0.17 \end{split}$$

glutarate (pentanedioate) [cell]

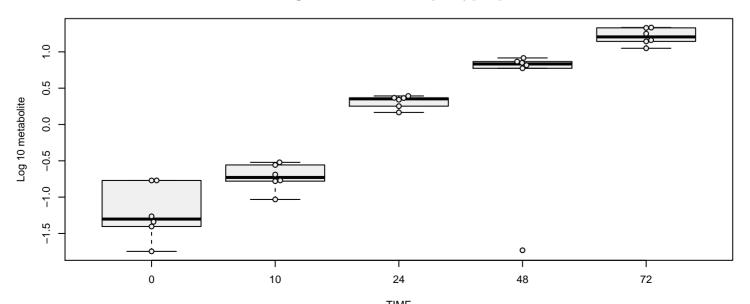


hit 552 metabolite 555 : glutarate (pentanedioate) [cell] , p = 2.1e-07

glutathione, oxidized (GSSG) [cell]

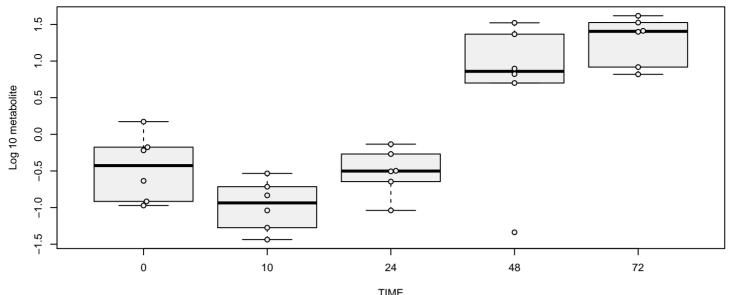


glutathione, reduced (GSH) [cell]



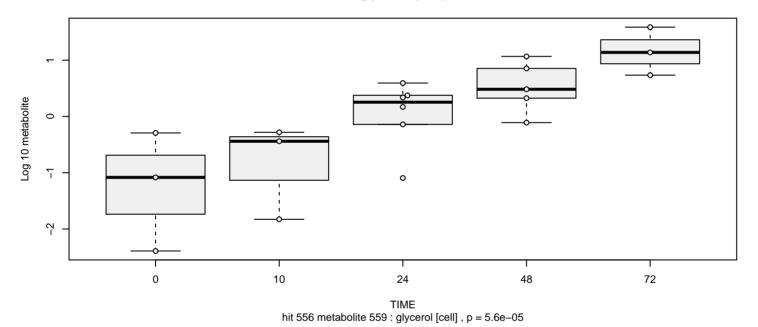
 $\label{eq:TIME} \mbox{hit 554 metabolite 557: glutathione, reduced (GSH) [cell] , p = 9.2e-09}$

glycerate [cell]

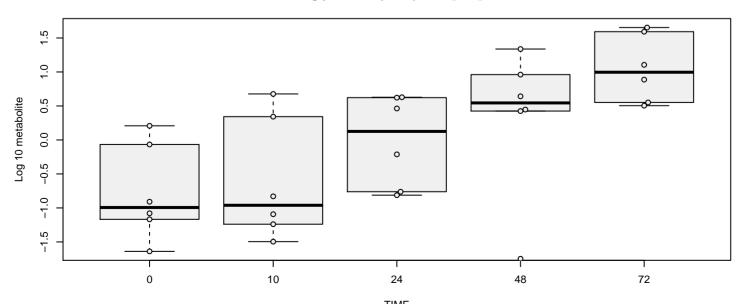


TIME hit 555 metabolite 558 : glycerate [cell] , p = 1.7e-07

glycerol [cell]

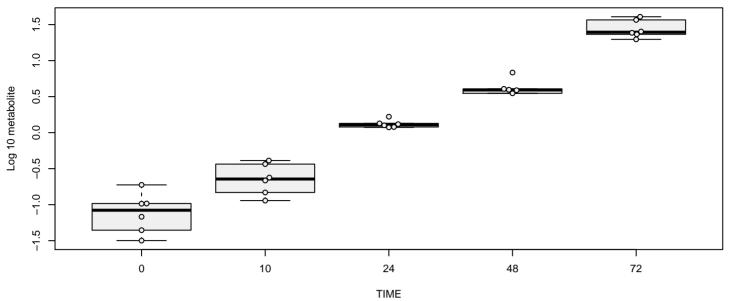


glycerol 3-phosphate [cell]



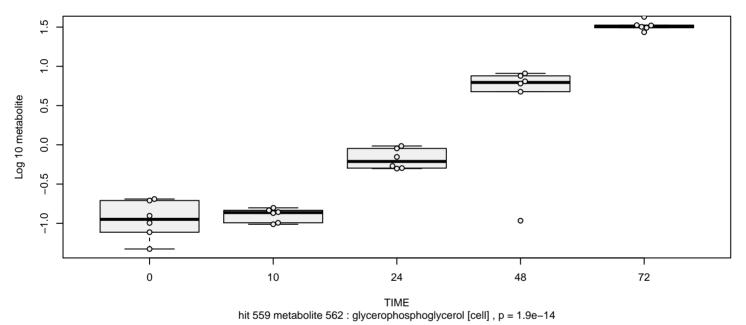
 $\label{eq:TIME} \begin{array}{c} \text{TIME} \\ \text{hit 557 metabolite 560: glycerol 3-phosphate [cell] , p = 5.8e-05} \end{array}$

glycerophosphoethanolamine [cell]

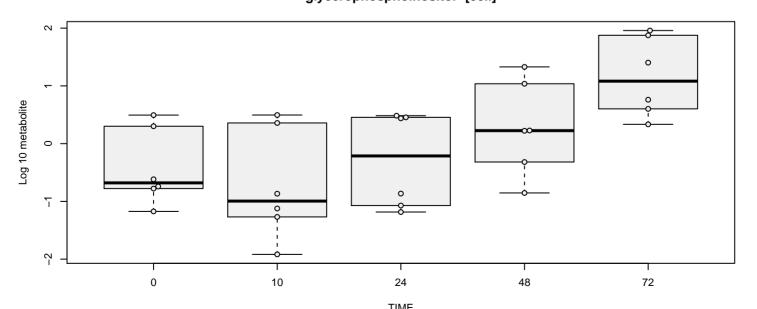


hit 558 metabolite 561 : glycerophosphoethanolamine [cell] , p = 1.8e-09

glycerophosphoglycerol [cell]

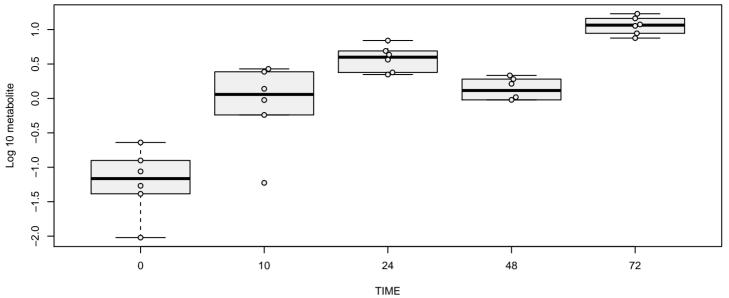


glycerophosphoinositol* [cell]



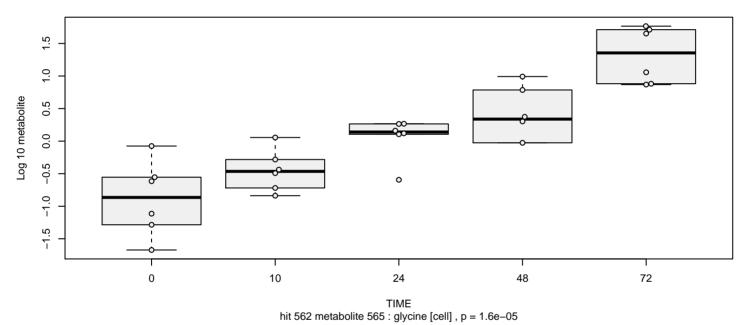
 $\label{eq:time} TIME \\ \mbox{hit 560 metabolite 563: glycerophosphoinositol* [cell] , p = 0.00014}$

glycerophosphorylcholine (GPC) [cell]

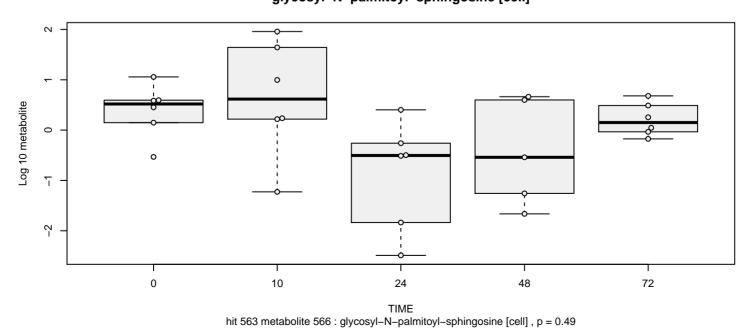


hit 561 metabolite 564 : glycerophosphorylcholine (GPC) [cell] , p = 0.001

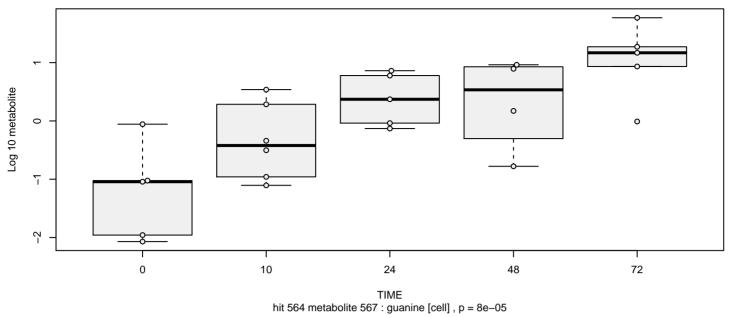
glycine [cell]



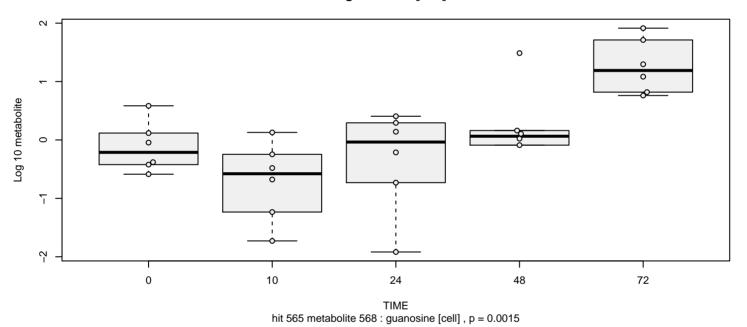
glycosyl-N-palmitoyl-sphingosine [cell]



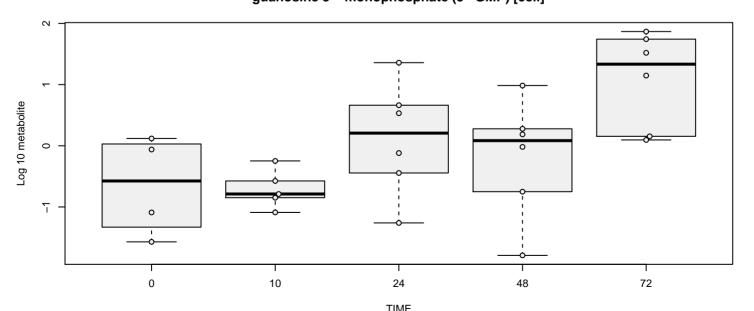
guanine [cell]



guanosine [cell]

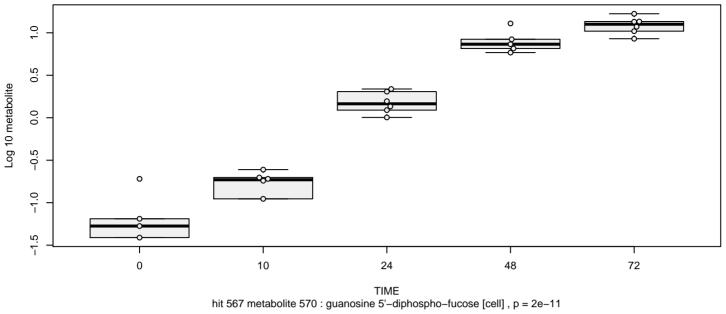


guanosine 5'- monophosphate (5'-GMP) [cell]

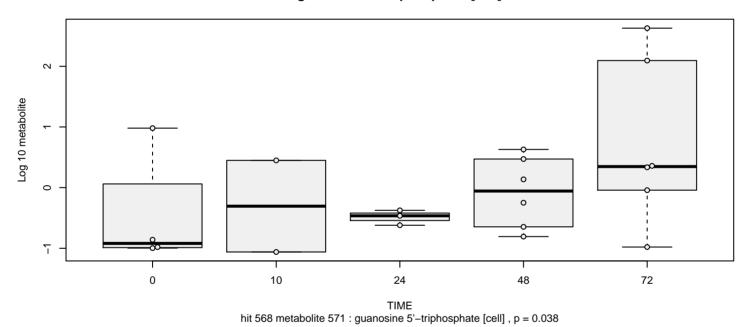


 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 566 metabolite 569: guanosine 5'- monophosphate (5'-GMP) [cell] , $p = 0.0014$}$

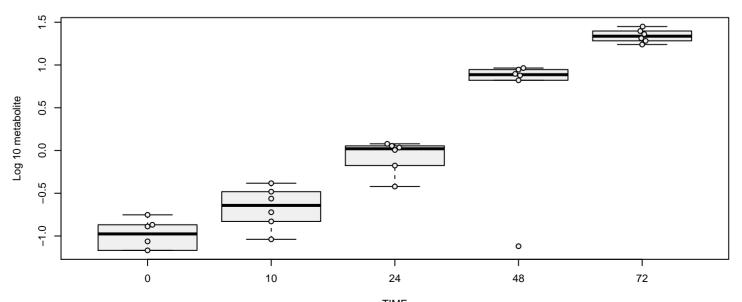
guanosine 5'-diphospho-fucose [cell]



guanosine 5'-triphosphate [cell]

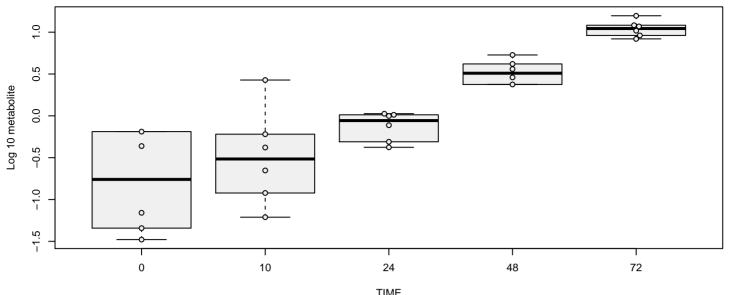


gulonic acid* [cell]



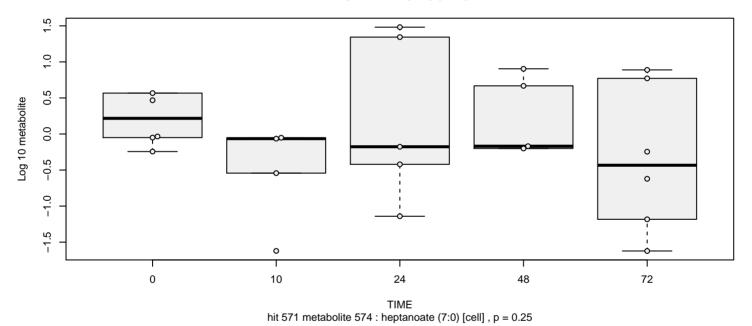
$$\label{eq:time_time} \begin{split} & \text{TIME} \\ & \text{hit 569 metabolite 572: gulonic acid* [cell] , p = 2.2e-11} \end{split}$$

HEPES [cell]

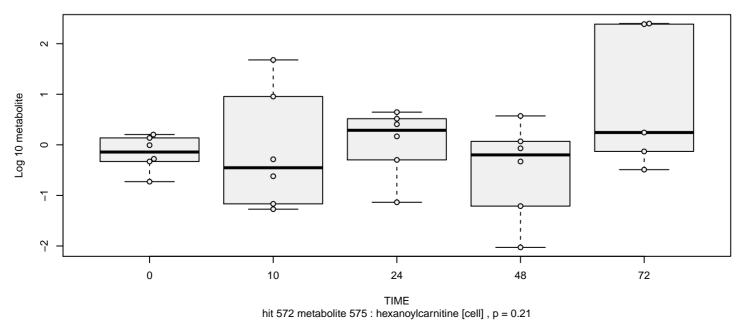


 $\label{eq:TIME} \begin{array}{c} \text{TIME} \\ \text{hit 570 metabolite 573 : HEPES [cell] , p = 0.0034} \end{array}$

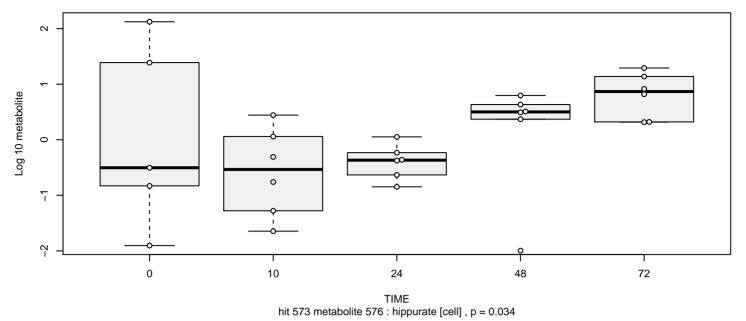
heptanoate (7:0) [cell]



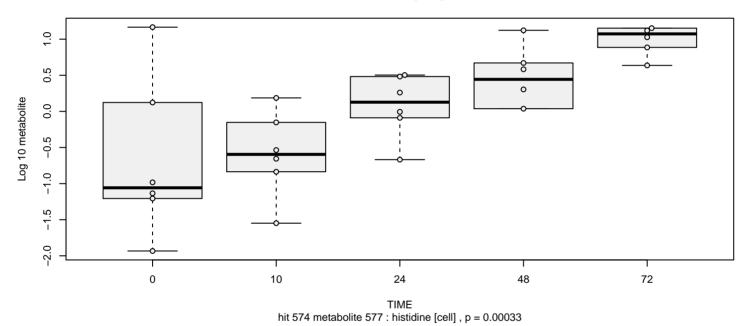
hexanoylcarnitine [cell]



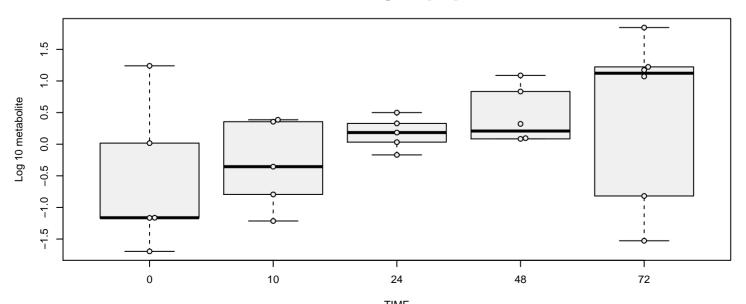
hippurate [cell]



histidine [cell]

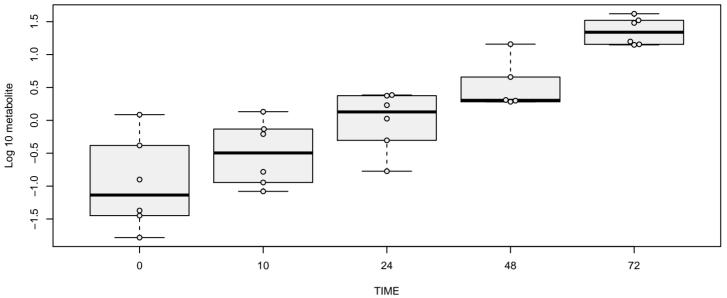


homoarginine [cell]



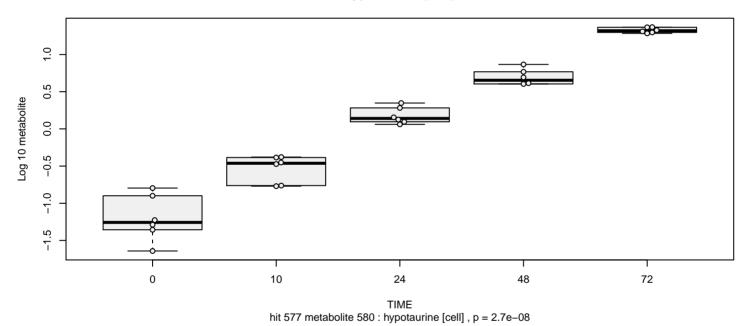
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 575 metabolite 578 : homoarginine [cell] , p = 0.075} \end{split}$$

homostachydrine* [cell]

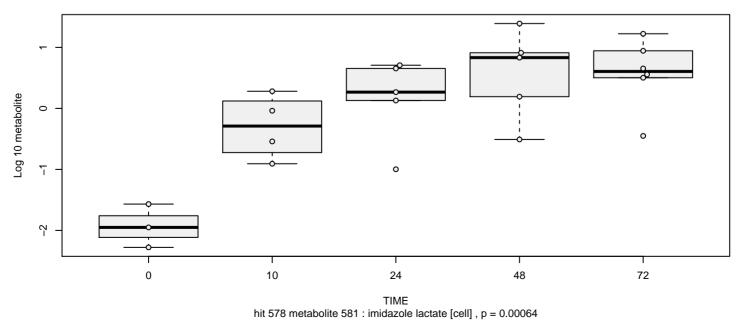


hit 576 metabolite 579 : homostachydrine* [cell] , p = 8.9e-07

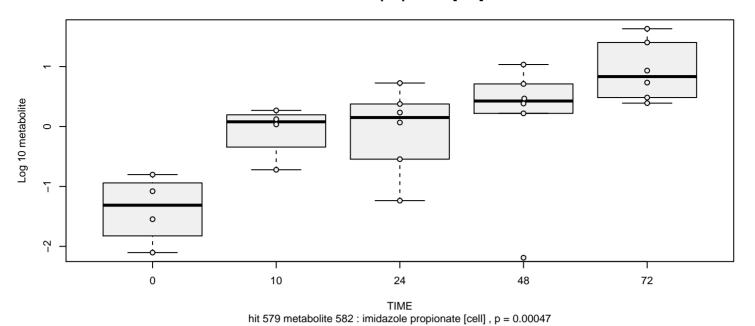
hypotaurine [cell]



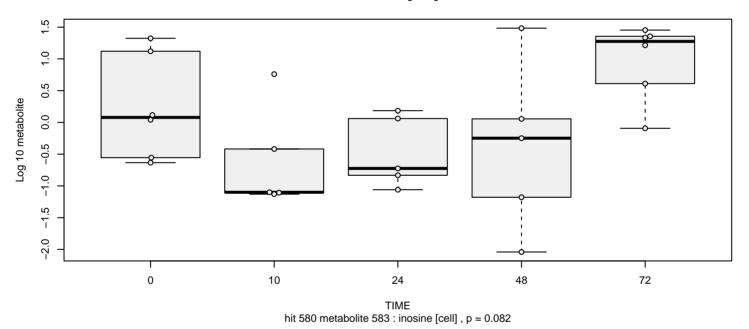
imidazole lactate [cell]



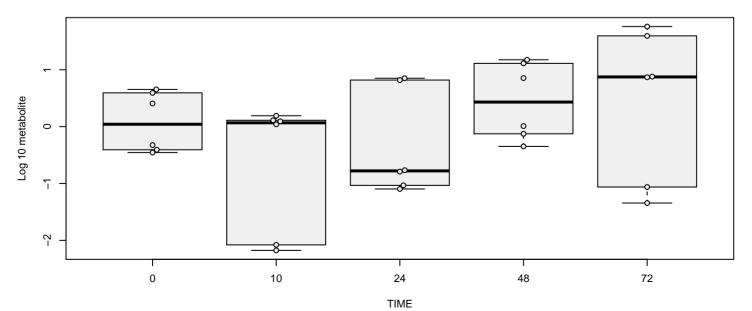
imidazole propionate [cell]



inosine [cell]

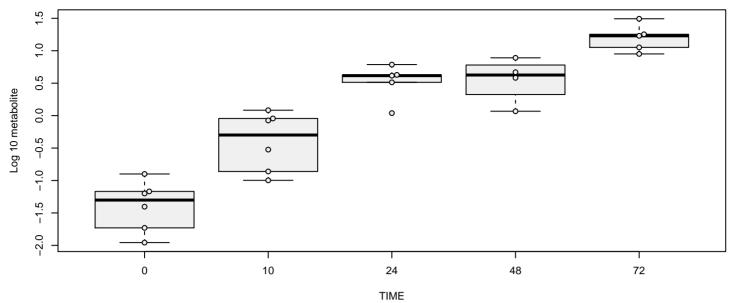


Isobar: fructose 1,6-diphosphate, glucose 1,6-diphosphate, myo-inositol 1,4 or 1,3-diphosphate [cell]



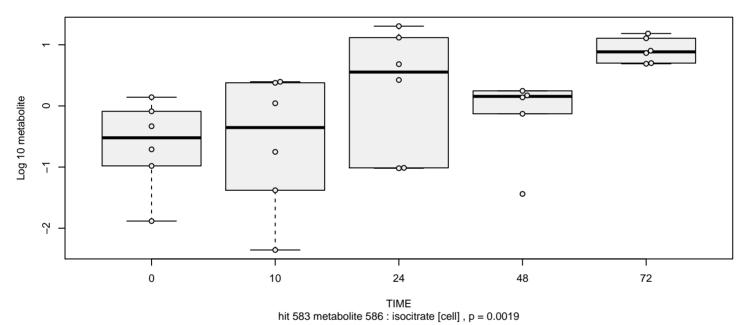
hit 581 metabolite 584 : Isobar: fructose 1,6-diphosphate, glucose 1,6-diphosphate, myo-inositol 1,4 or 1,3-diphosphate [cell] , p = 0.1

isobutyrylcarnitine [cell]

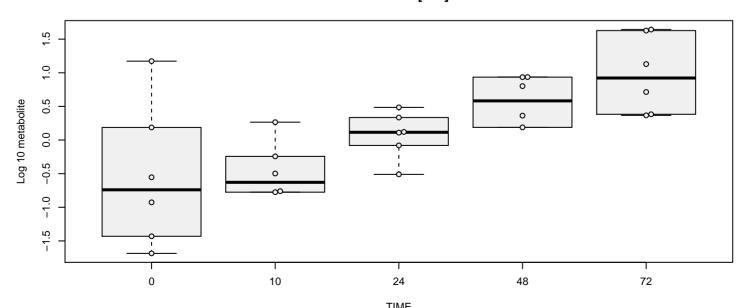


hit 582 metabolite 585 : isobutyrylcarnitine [cell] , p = 2.4e-08

isocitrate [cell]

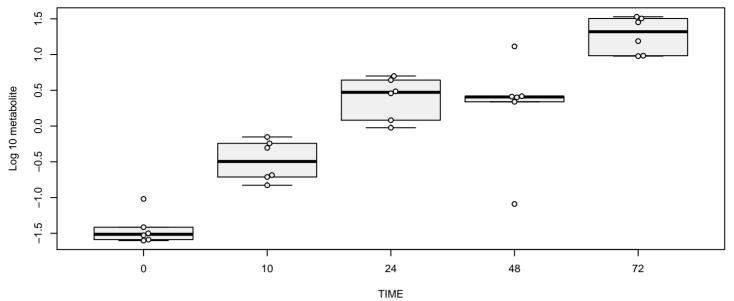


isoleucine [cell]



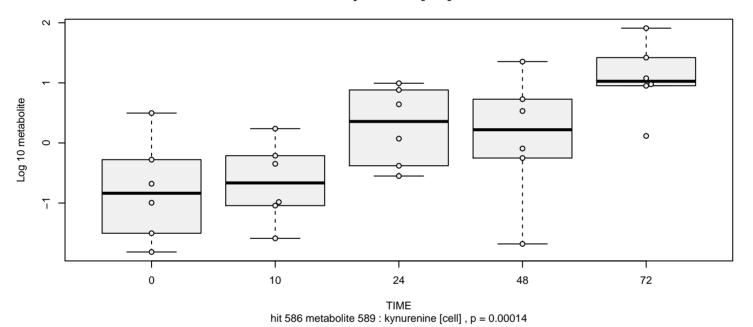
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 584 metabolite 587 : isoleucine [cell] , p = 0.0012} \end{split}$$

isovalerylcarnitine [cell]

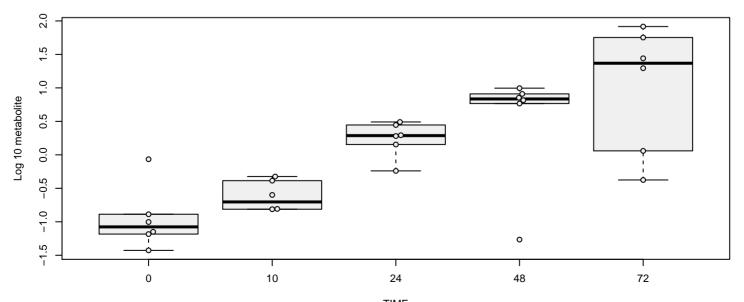


hit 585 metabolite 588 : isovalerylcarnitine [cell] , p = 3.7e-09

kynurenine [cell]

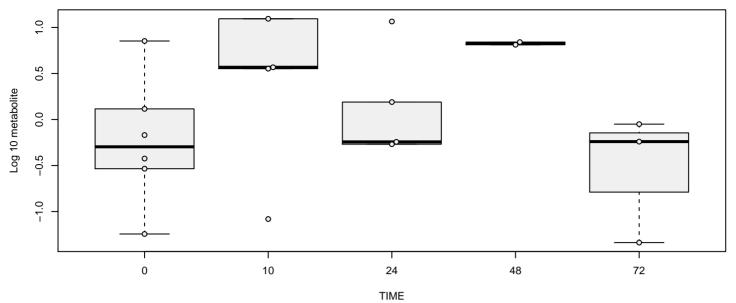


lactate [cell]



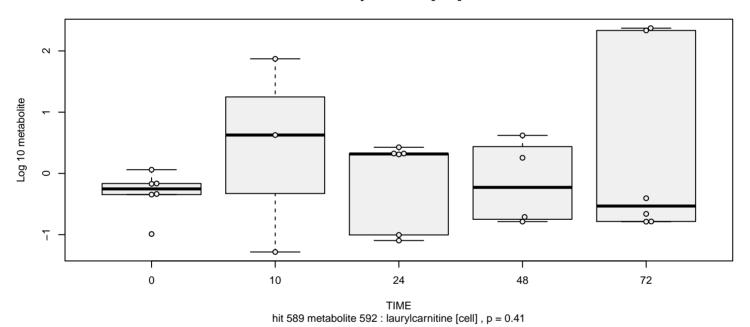
 $\label{eq:TIME} \begin{array}{c} \text{TIME} \\ \text{hit 587 metabolite 590 : lactate [cell] , p = 2.8e-06} \end{array}$

lactosyl-N-palmitoyl-sphingosine [cell]

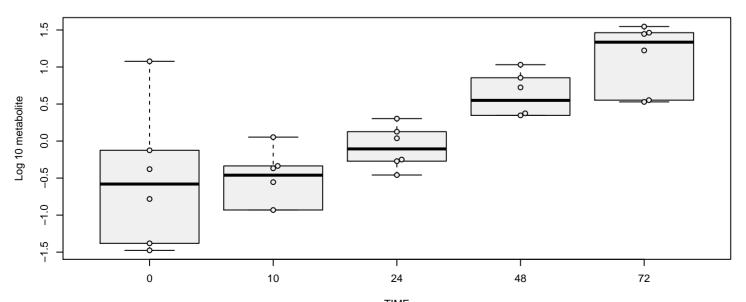


hit 588 metabolite 591 : lactosyl-N-palmitoyl-sphingosine [cell] , p = 0.68

laurylcarnitine [cell]

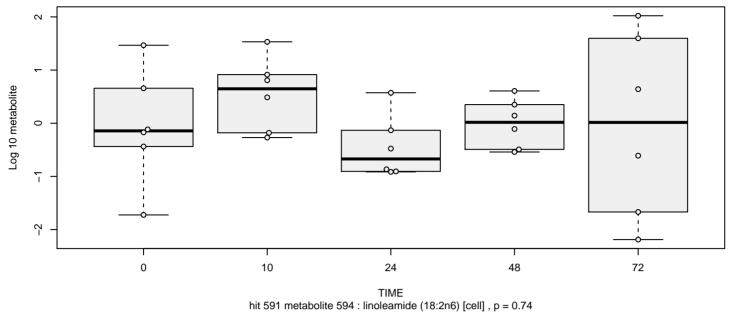


leucine [cell]

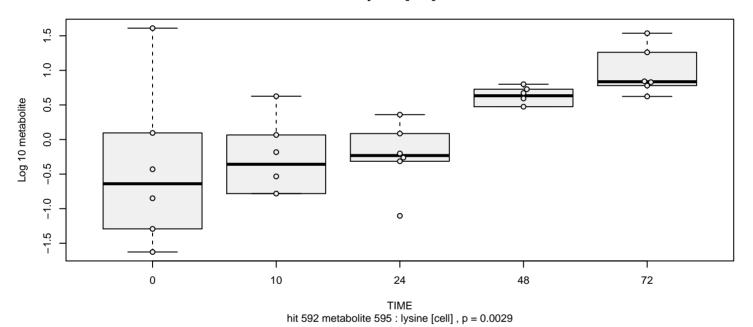


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 590 metabolite 593 : leucine [cell] , p = 0.00031} \end{split}$$

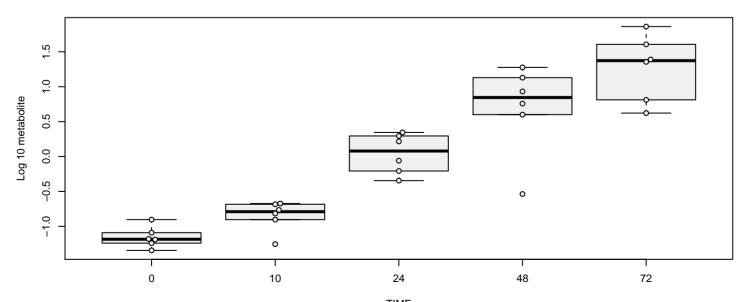
linoleamide (18:2n6) [cell]



lysine [cell]

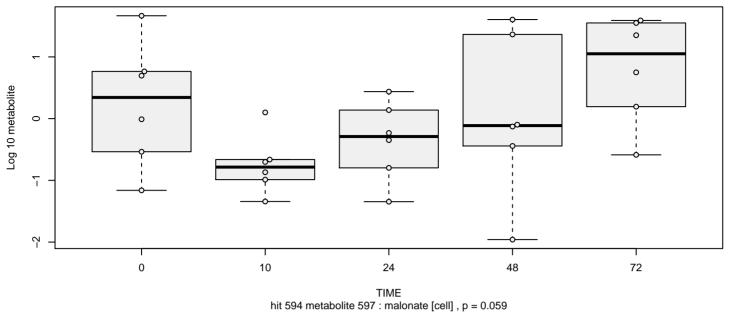


malate [cell]

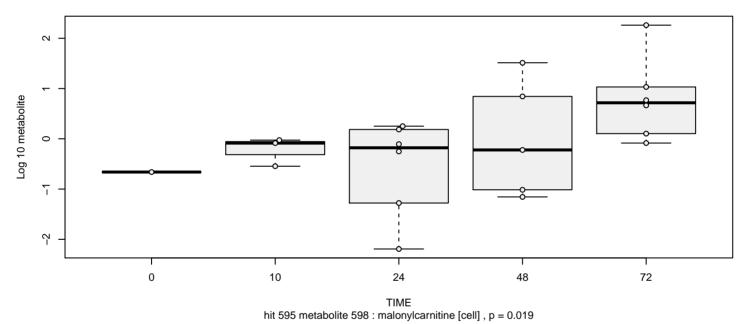


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 593 metabolite 596 : malate [cell] , p = 1.8e-12} \end{split}$$

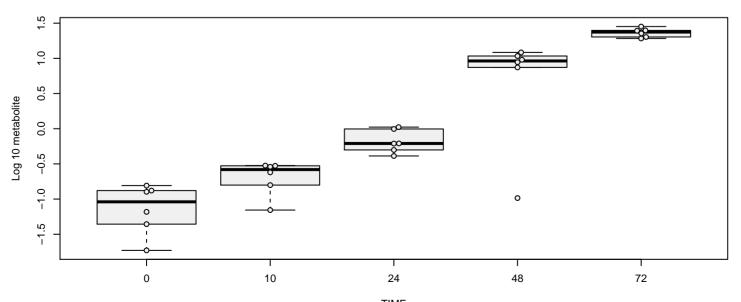
malonate [cell]



malonylcarnitine [cell]

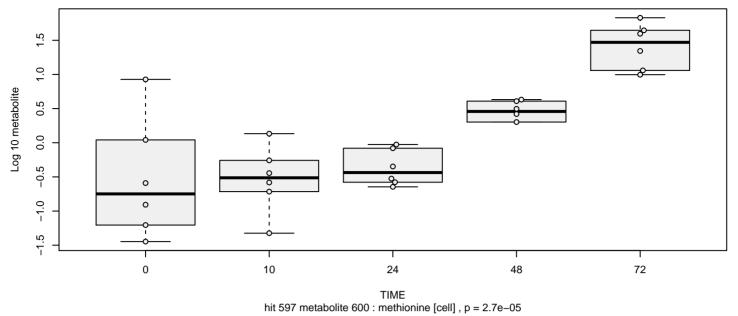


mannitol/sorbitol [cell]

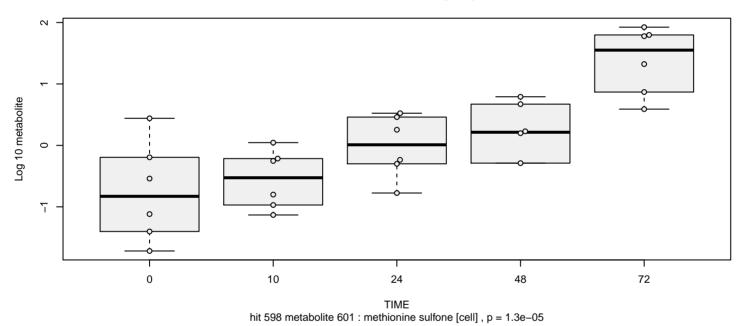


 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 596 metabolite 599 : mannitol/sorbitol [cell] , p = 6.5e-13 \\ \mbox{}$

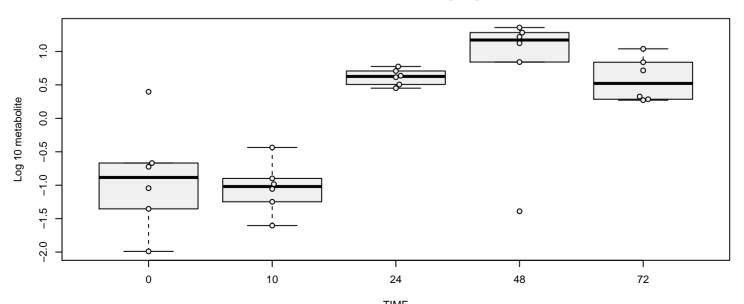
methionine [cell]



methionine sulfone [cell]

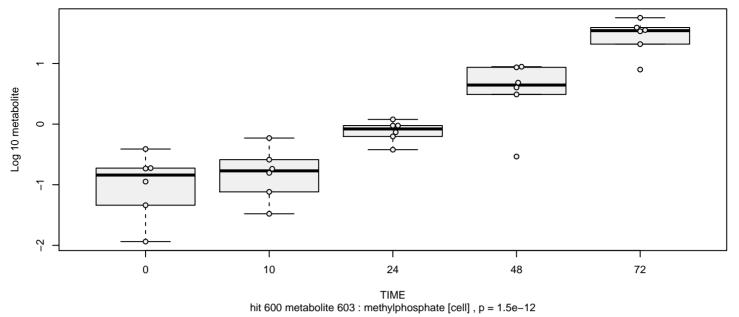


methionine sulfoxide [cell]

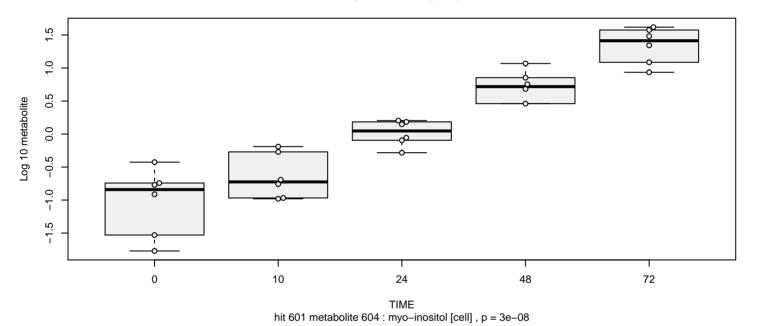


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 599 metabolite 602: methionine sulfoxide [cell] , p = 0.00016} \end{split}$$

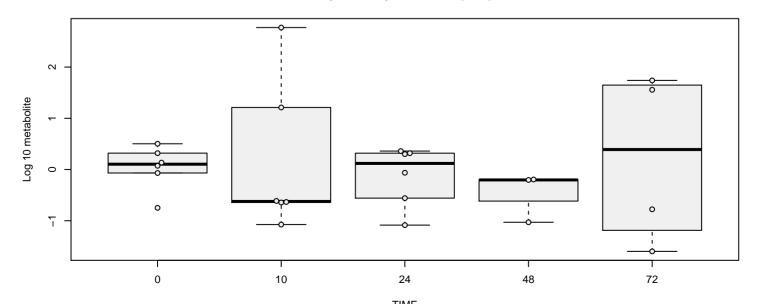
methylphosphate [cell]



myo-inositol [cell]

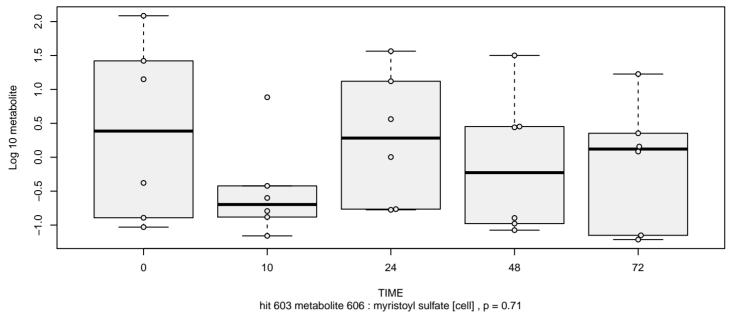


myristoleoylcarnitine* [cell]

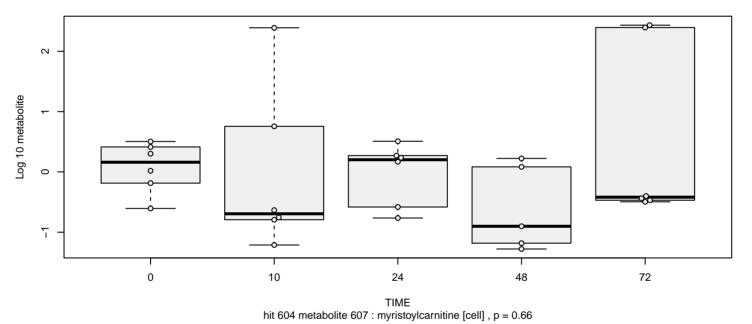


 $\label{eq:time} \begin{array}{c} \text{TIME} \\ \text{hit 602 metabolite 605 : myristoleoylcarnitine* [cell] , p = 0.94} \end{array}$

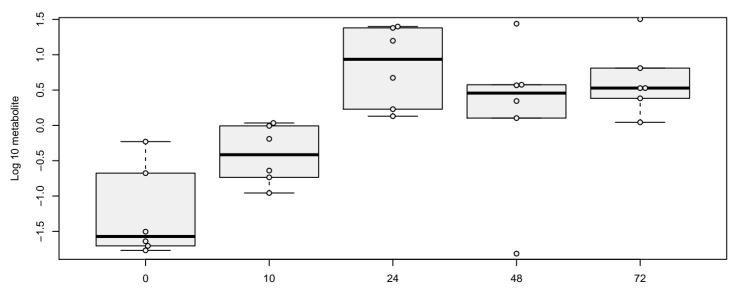
myristoyl sulfate [cell]



myristoylcarnitine [cell]

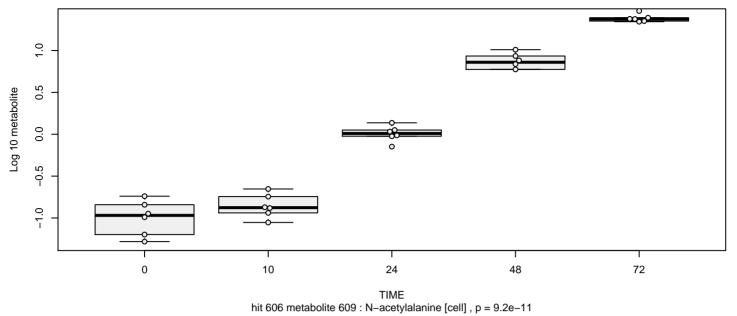


N-acetyl-aspartyl-glutamate (NAAG) [cell]

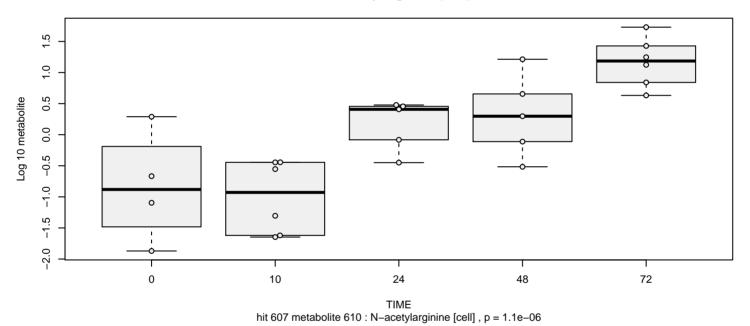


TIME hit 605 metabolite 608 : N-acetyl-aspartyl-glutamate (NAAG) [cell] , p = 0.0015

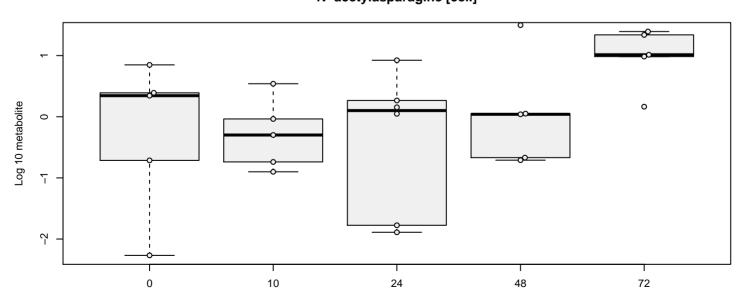
N-acetylalanine [cell]



N-acetylarginine [cell]

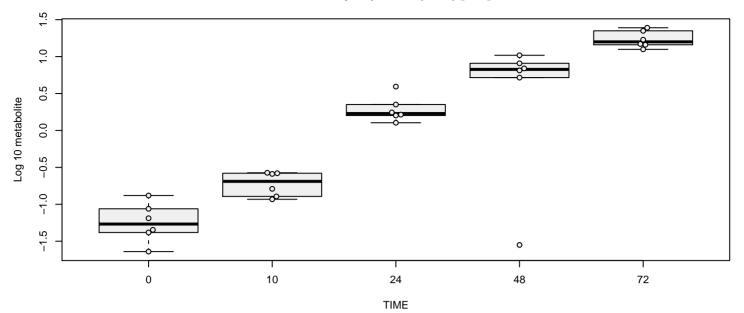


N-acetylasparagine [cell]



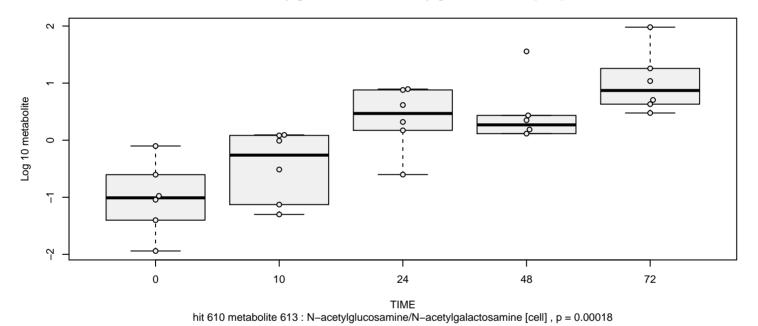
 $\label{eq:TIME} \mbox{hit 608 metabolite 611 : N-acetylasparagine [cell] , $p = 0.022$}$

N-acetylaspartate (NAA) [cell]

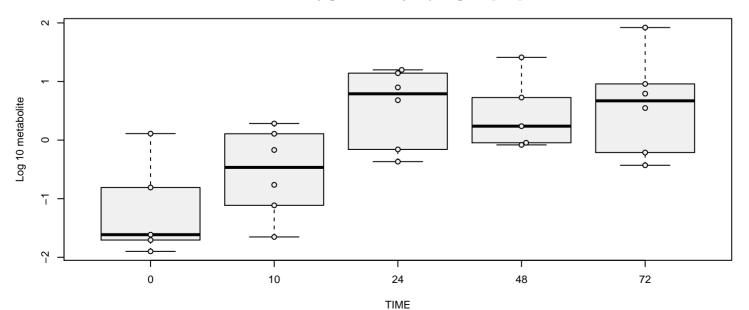


hit 609 metabolite 612 : N-acetylaspartate (NAA) [cell] , p = 1.4e-09

N-acetylglucosamine/N-acetylgalactosamine [cell]

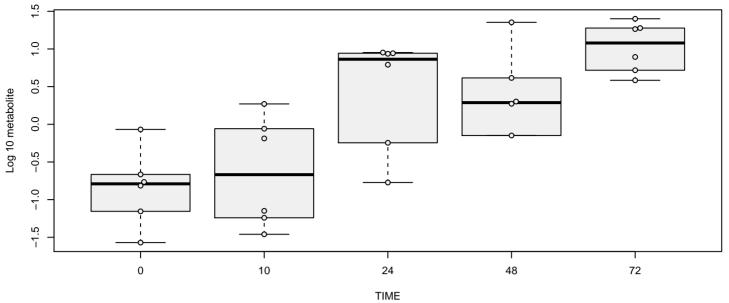


N-acetylglucosaminylasparagine [cell]



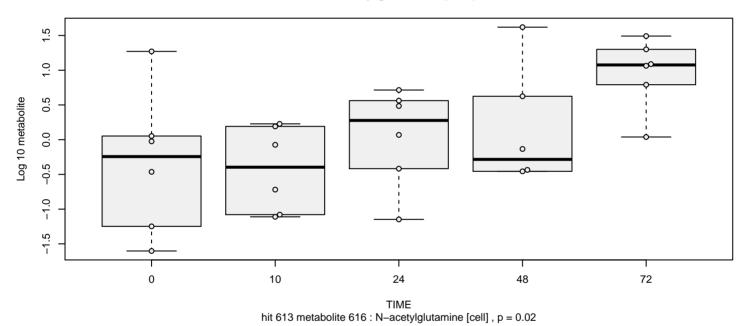
hit 611 metabolite 614 : N-acetylglucosaminylasparagine [cell] , p = 0.0014

N-acetylglutamate [cell]

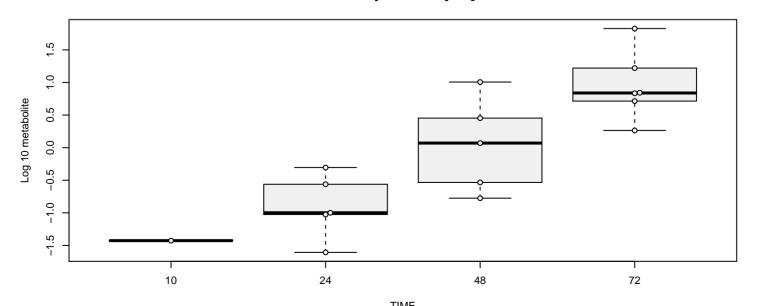


hit 612 metabolite 615 : N-acetylglutamate [cell] , p = 0.00033

N-acetylglutamine [cell]

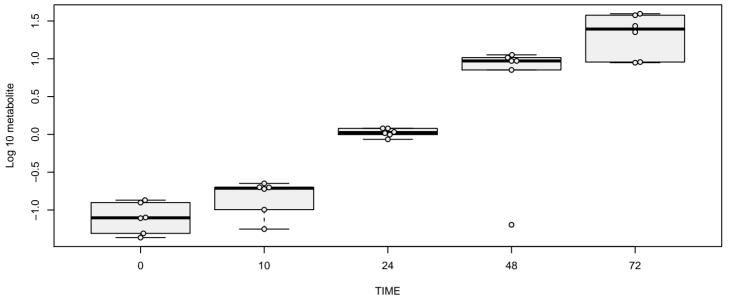


N-acetylhistidine [cell]



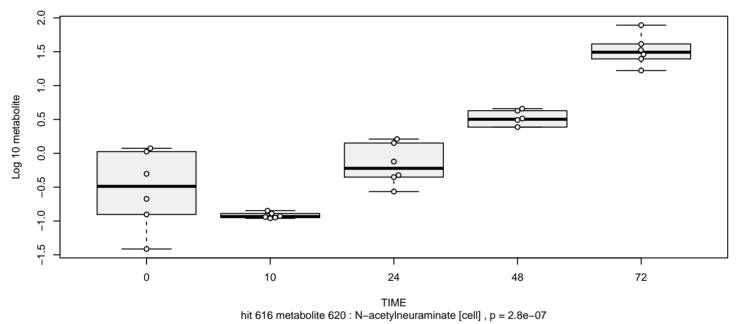
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 614 metabolite 617: N--acetylhistidine [cell] , p = 1.7e-05} \end{split}$$

N-acetylmethionine [cell]

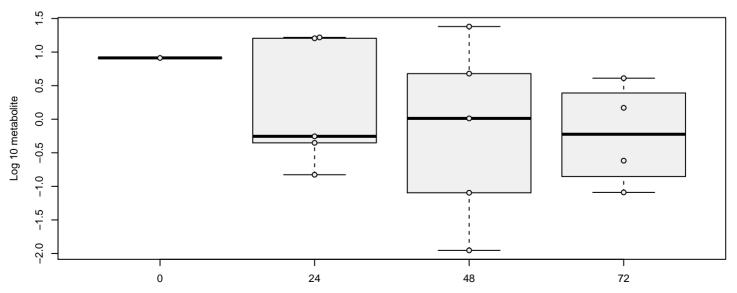


hit 615 metabolite 618 : N-acetylmethionine [cell] , p = 1.1e-11

N-acetylneuraminate [cell]

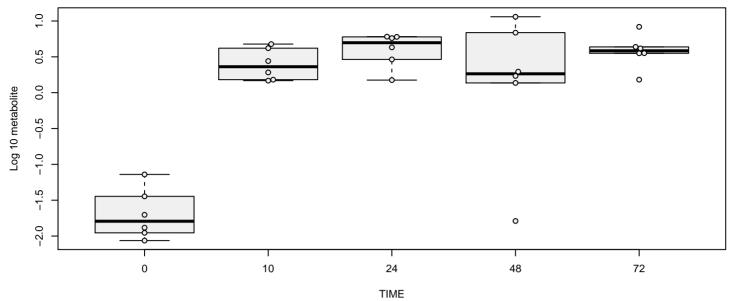


N-acetylphenylalanine [cell]



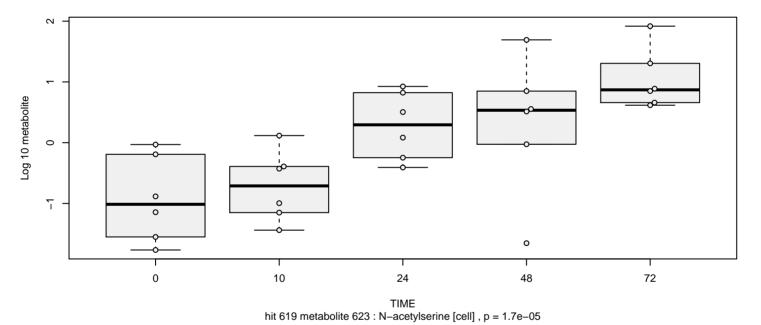
TIME hit 617 metabolite 621 : N-acetylphenylalanine [cell] , p = 0.3

N-acetylputrescine [cell]

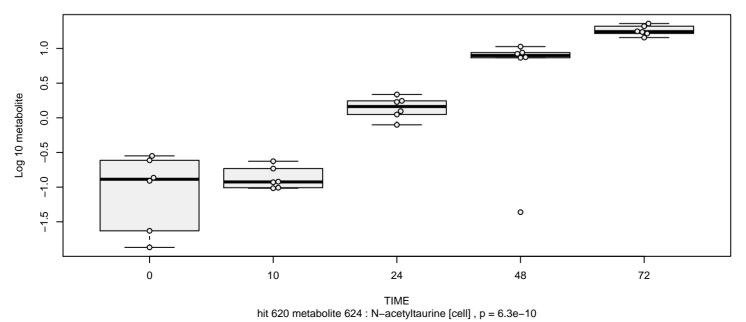


hit 618 metabolite 622 : N-acetylputrescine [cell] , p = 0.0037

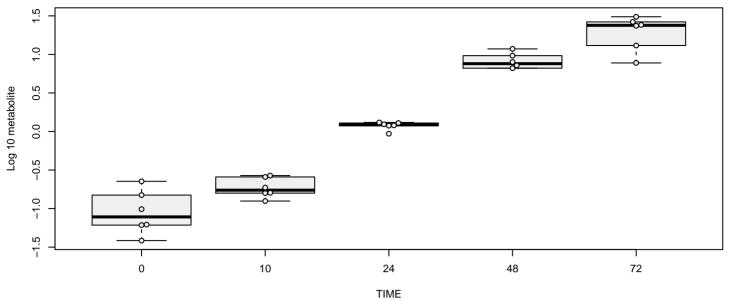
N-acetylserine [cell]



N-acetyltaurine [cell]

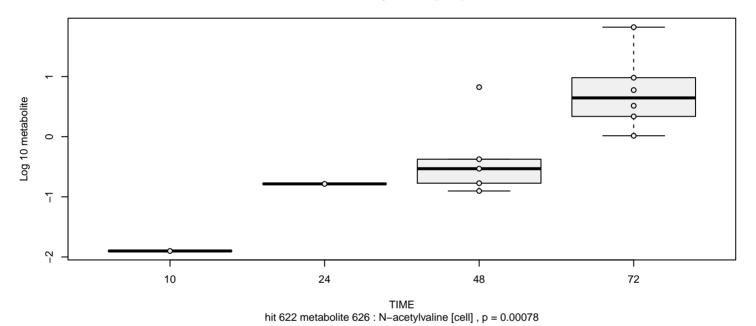


N-acetylthreonine [cell]

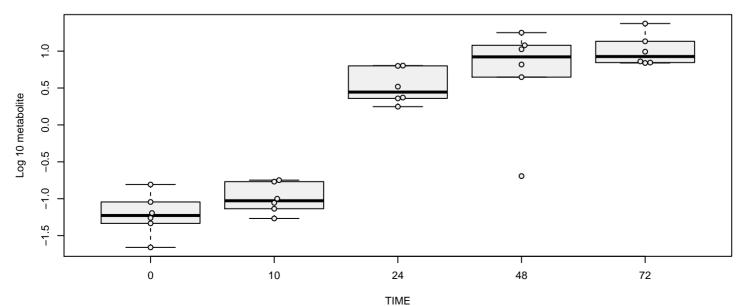


hit 621 metabolite 625 : N-acetylthreonine [cell] , p = 1e-08

N-acetylvaline [cell]

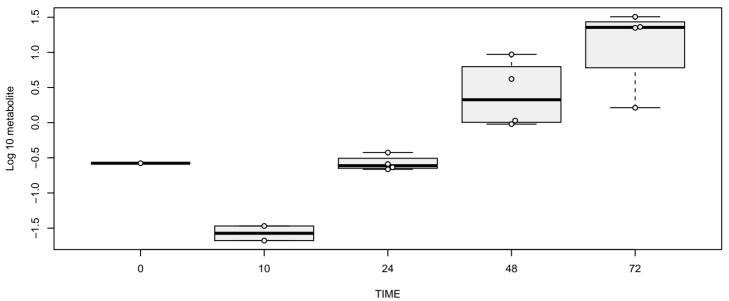


N-carbamoylaspartate [cell]



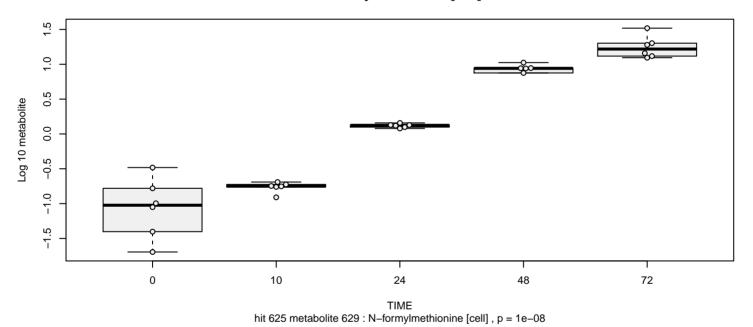
hit 623 metabolite 627 : N-carbamoylaspartate [cell] , p = 6.4e-09

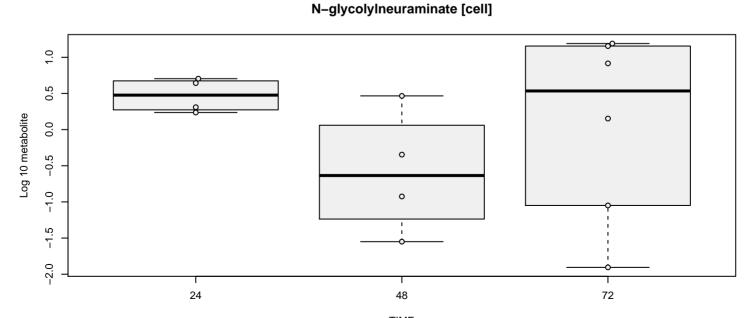
N-delta-acetylornithine [cell]



hit 624 metabolite 628 : N-delta-acetylornithine [cell] , p = 1.4e-05

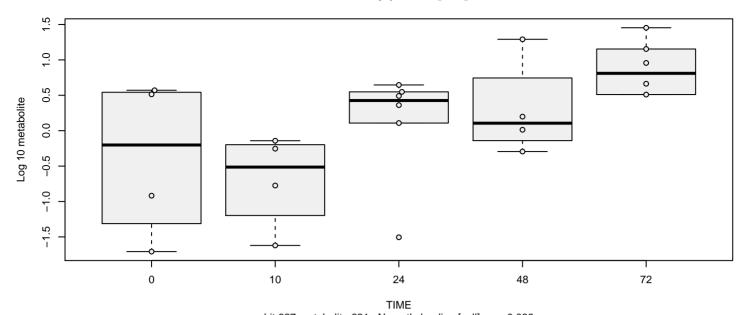
N-formylmethionine [cell]



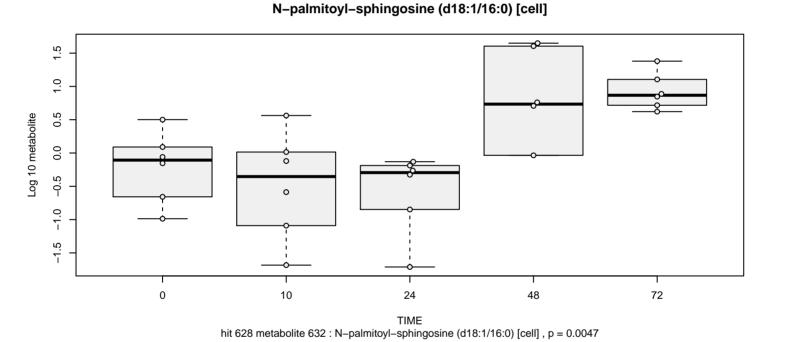


 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 626 metabolite 630 : N-glycolylneuraminate [cell] , p = 0.66} \\$

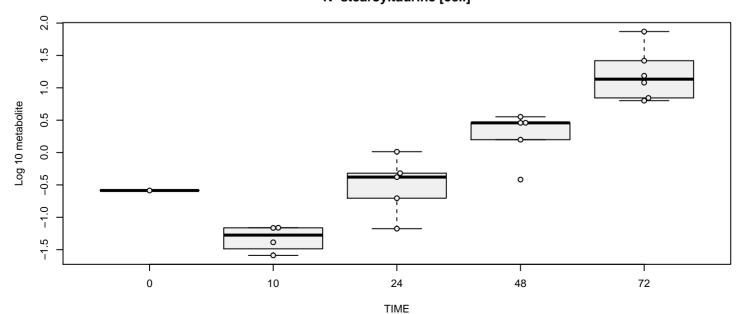
N-methylproline [cell]



hit 627 metabolite 631 : N-methylproline [cell] , p = 0.086

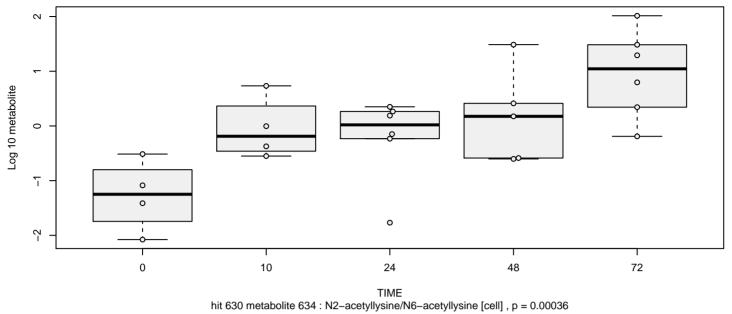


N-stearoyltaurine [cell]

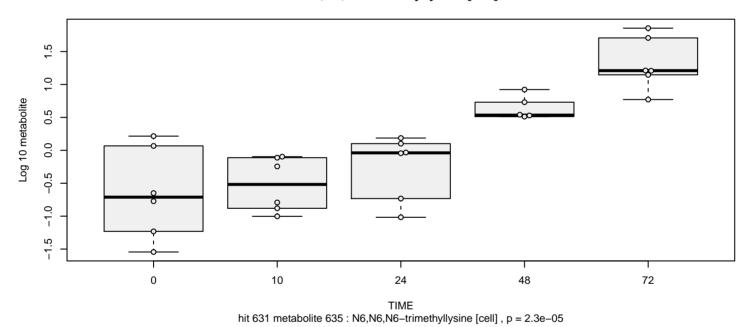


hit 629 metabolite 633 : N-stearoyltaurine [cell] , p = 8.7e-09

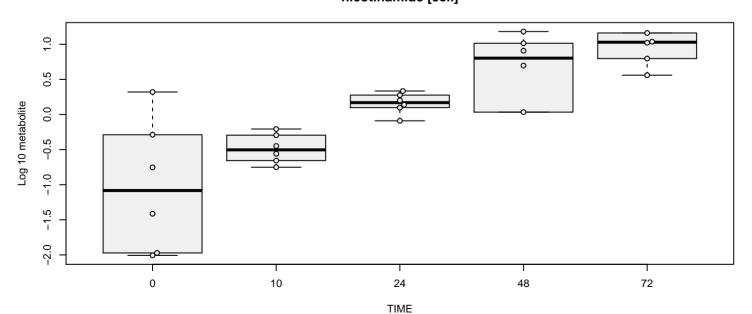
N2-acetyllysine/N6-acetyllysine [cell]



N6,N6,N6-trimethyllysine [cell]

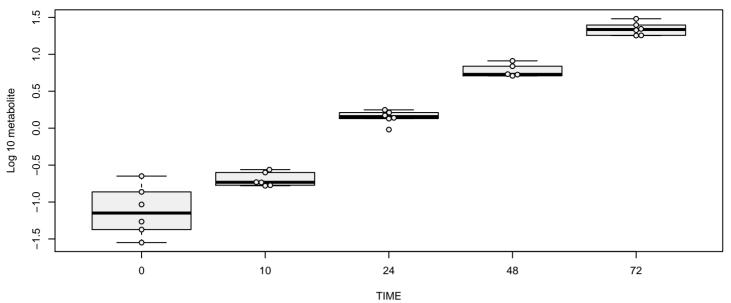


nicotinamide [cell]



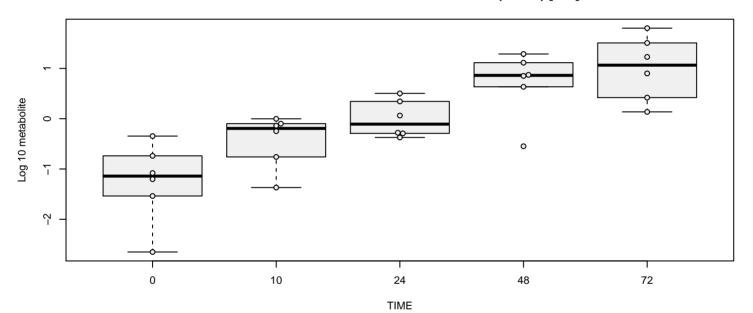
hit 632 metabolite 636 : nicotinamide [cell] , p = 2.1e-05

nicotinamide adenine dinucleotide (NAD+) [cell]



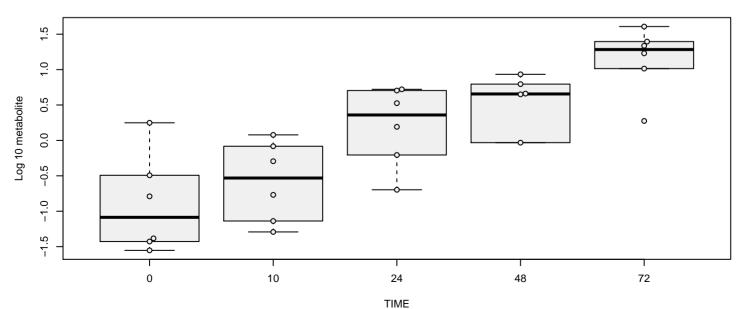
hit 633 metabolite 637 : nicotinamide adenine dinucleotide (NAD+) [cell] , p = 3.3e-09

nicotinamide adenine dinucleotide reduced (NADH) [cell]



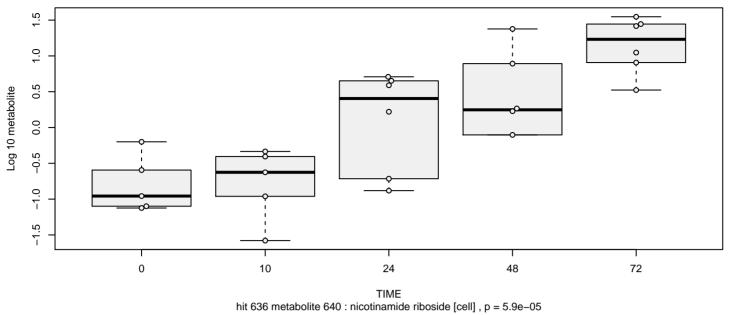
hit 634 metabolite 638 : nicotinamide adenine dinucleotide reduced (NADH) [cell] , p = 2.6e-07

nicotinamide ribonucleotide (NMN) [cell]

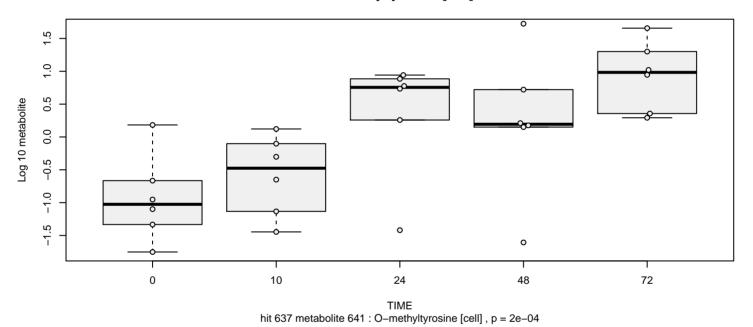


hit 635 metabolite 639 : nicotinamide ribonucleotide (NMN) [cell] , p = 3.2e–05

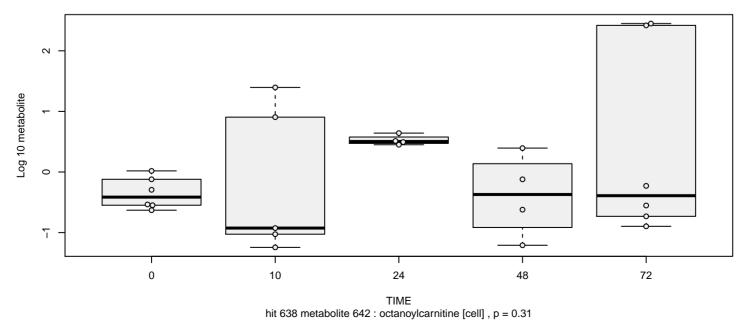
nicotinamide riboside [cell]



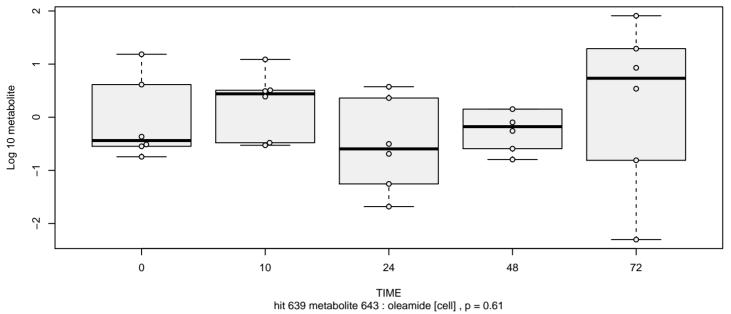
O-methyltyrosine [cell]



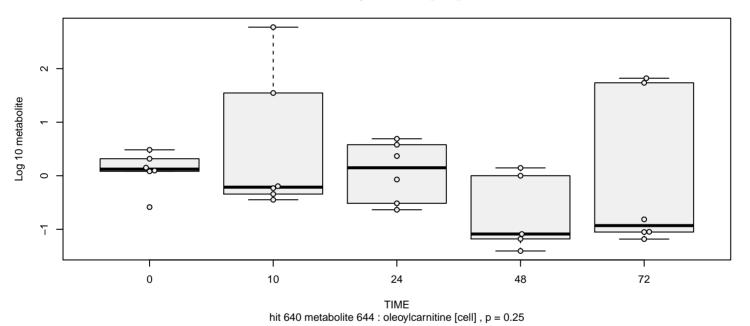
octanoylcarnitine [cell]



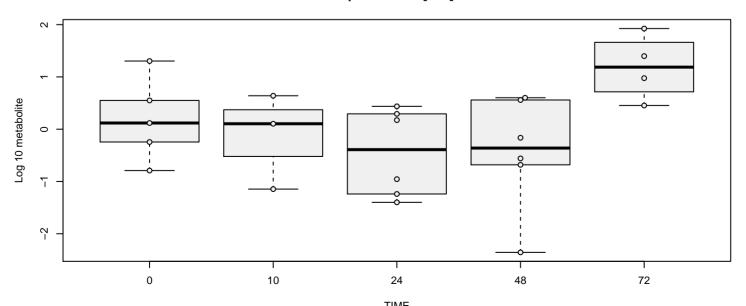
oleamide [cell]



oleoylcarnitine [cell]

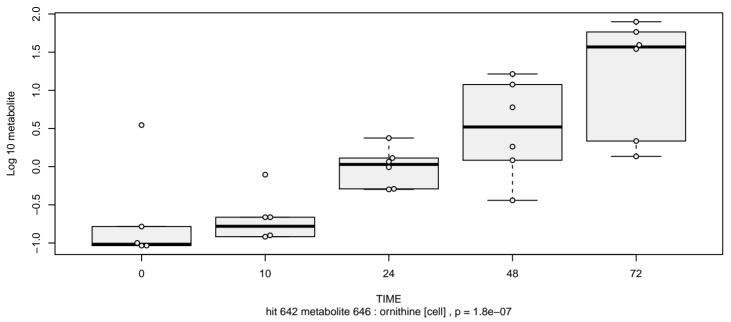


ophthalmate [cell]

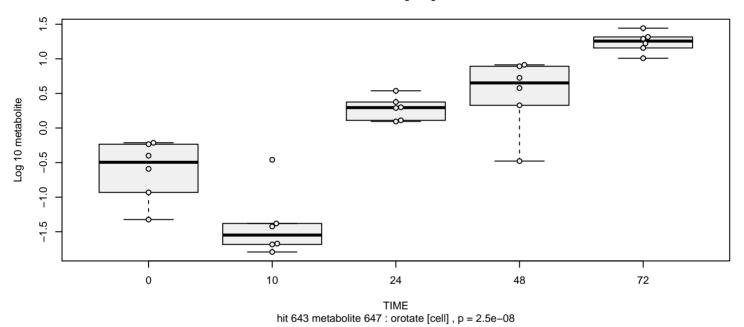


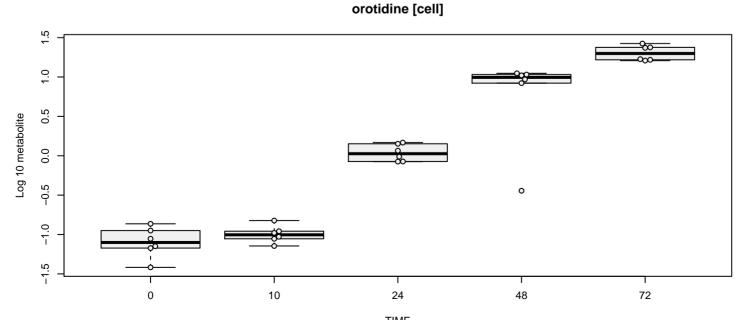
 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 641 metabolite 645 : ophthalmate [cell] , p = 0.23 \\ \mbox{}$

ornithine [cell]



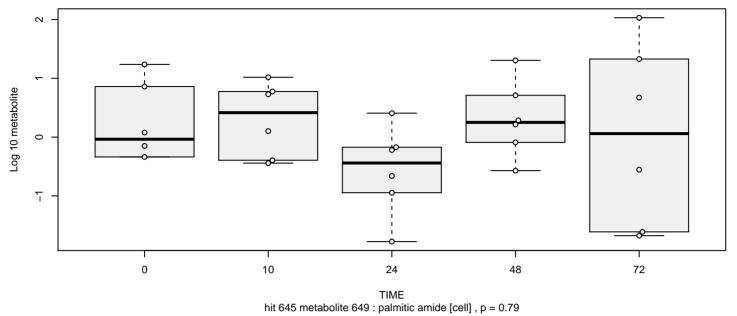
orotate [cell]



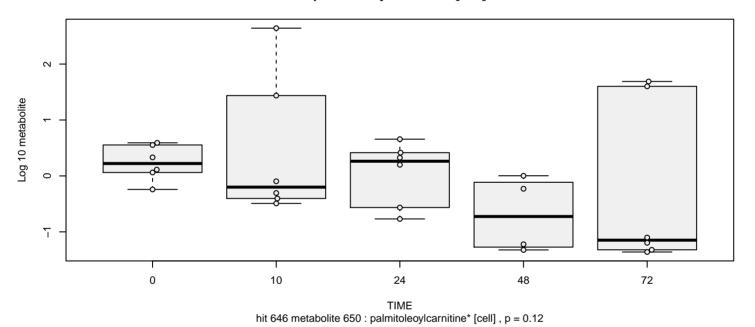


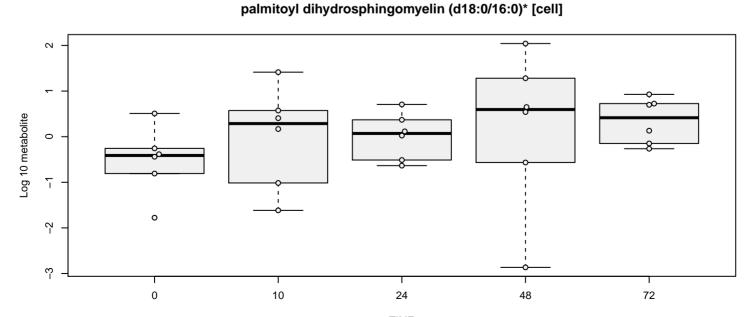
 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 644 metabolite 648 : orotidine [cell] , p = 7.7e-15} \\$

palmitic amide [cell]



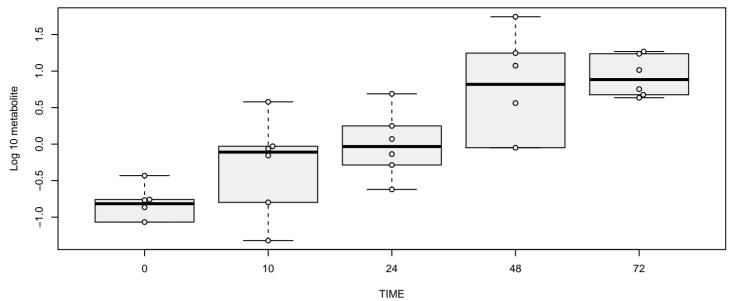
palmitoleoylcarnitine* [cell]





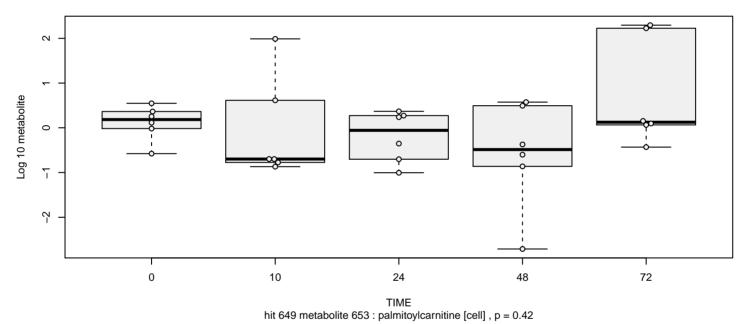
 $\label{total TIME} TIME \\ \mbox{hit 647 metabolite 651: palmitoyl dihydrosphingomyelin (d18:0/16:0)* [cell] , p = 0.16 \\ \mbox{}$

palmitoyl sphingomyelin (d18:1/16:0) [cell]

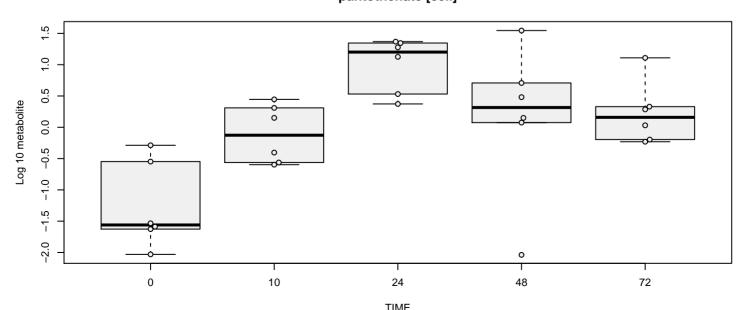


hit 648 metabolite 652 : palmitoyl sphingomyelin (d18:1/16:0) [cell] , p = 3e-04

palmitoylcarnitine [cell]

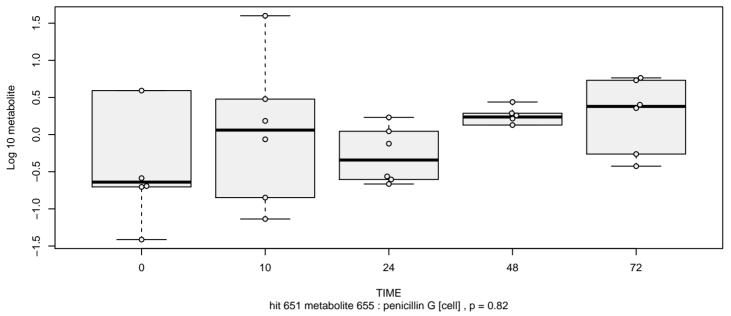


pantothenate [cell]

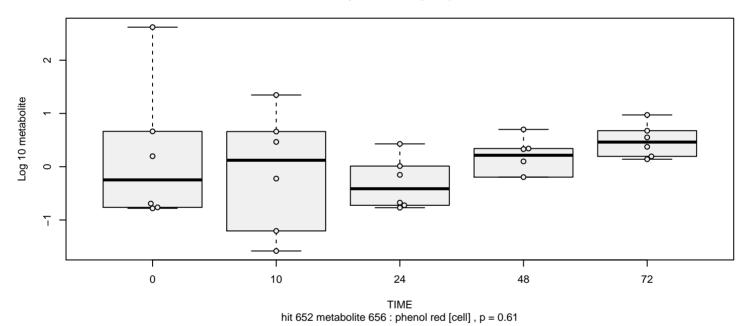


 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 650 metabolite 654 : pantothenate [cell] , p = 0.051 \\ \mbox{}$

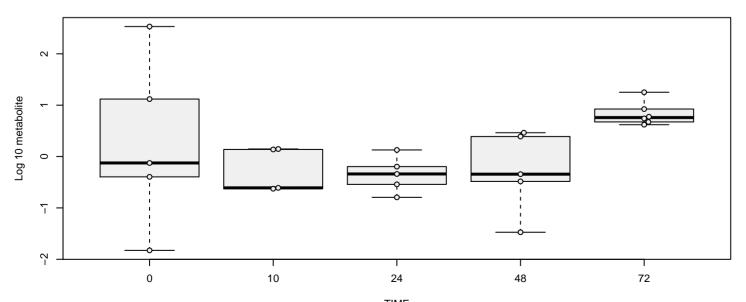
penicillin G [cell]



phenol red [cell]

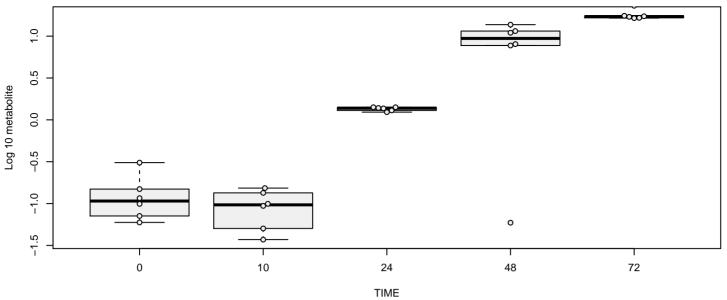


phenol sulfate [cell]



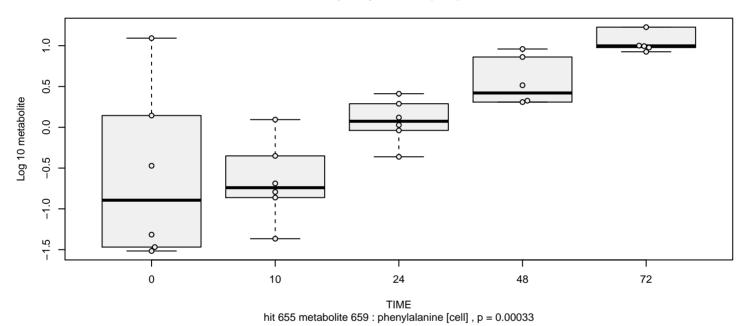
 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 653 metabolite 657 : phenol sulfate [cell] , p = 0.11 \\ \mbox{}$

phenylacetylglycine [cell]

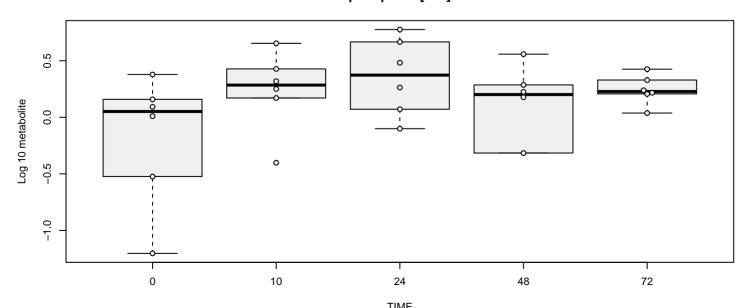


hit 654 metabolite 658 : phenylacetylglycine [cell] , p = 1.8e-10

phenylalanine [cell]

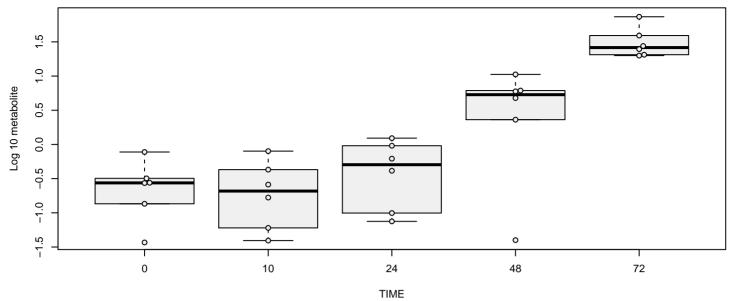


phosphate [cell]



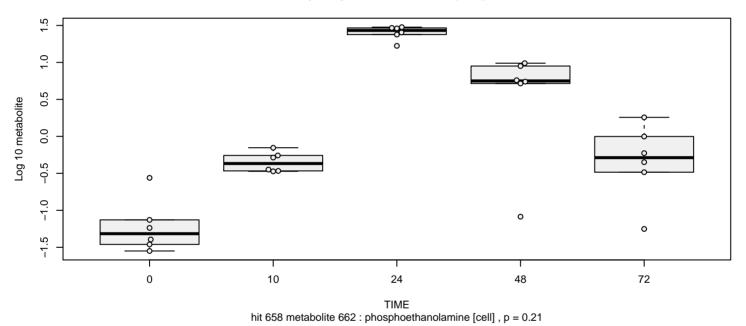
 $\label{eq:time} \begin{array}{c} \text{TIME} \\ \text{hit 656 metabolite 660 : phosphate [cell] , p = 0.9} \end{array}$

phosphoenolpyruvate (PEP) [cell]

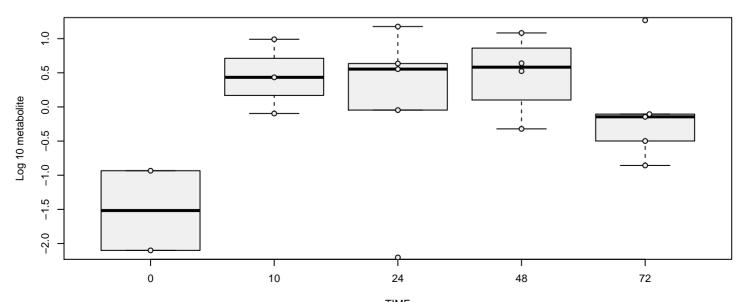


hit 657 metabolite 661 : phosphoenolpyruvate (PEP) [cell] , p = 1.4e-08

phosphoethanolamine [cell]

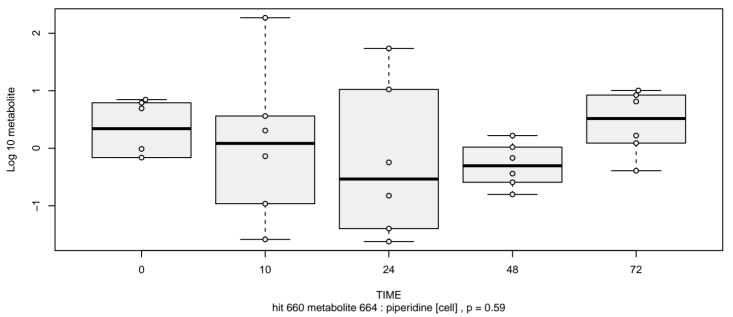


pipecolate [cell]

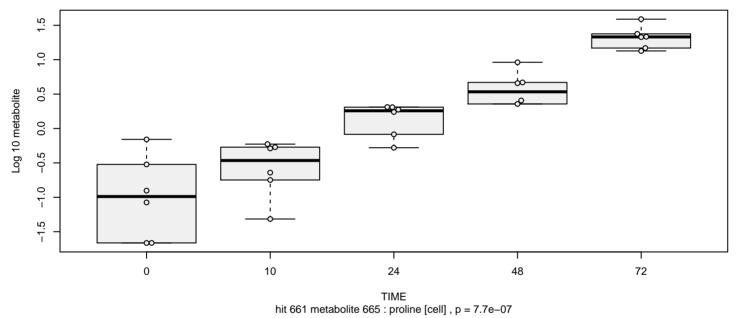


 $\label{eq:TIME} \begin{array}{c} \text{TIME} \\ \text{hit 659 metabolite 663 : pipecolate [cell] , p = 0.46} \end{array}$

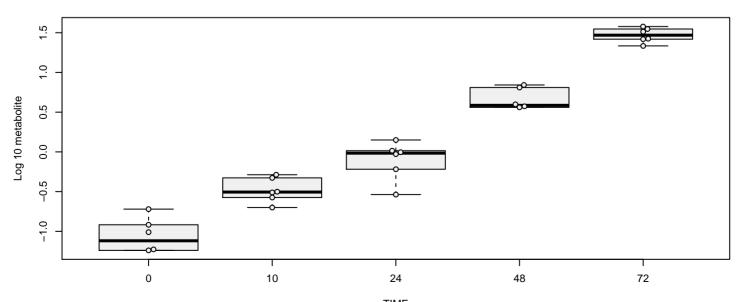
piperidine [cell]



proline [cell]

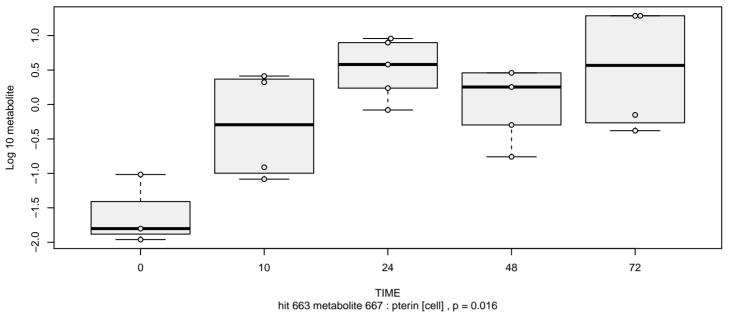


propionylcarnitine [cell]

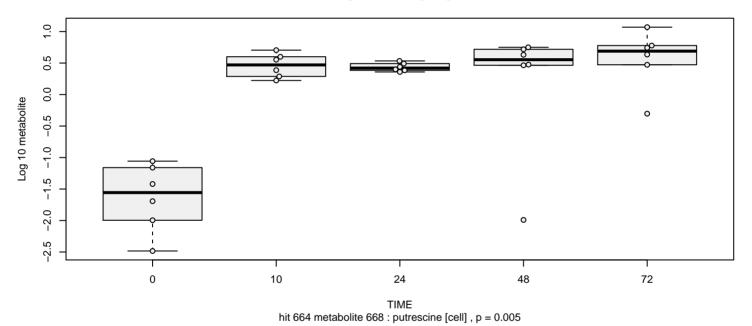


 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 662 metabolite 666 : propionylcarnitine [cell] , p = 6.2e-10} \\$

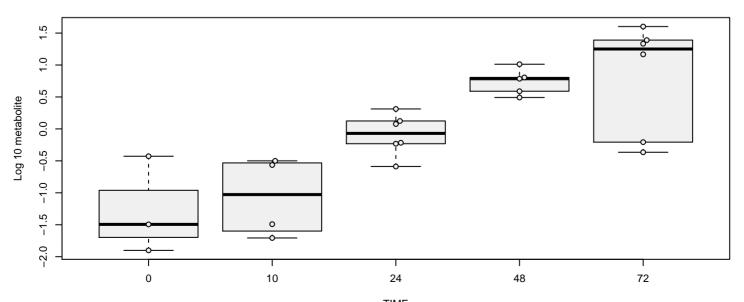
pterin [cell]



putrescine [cell]

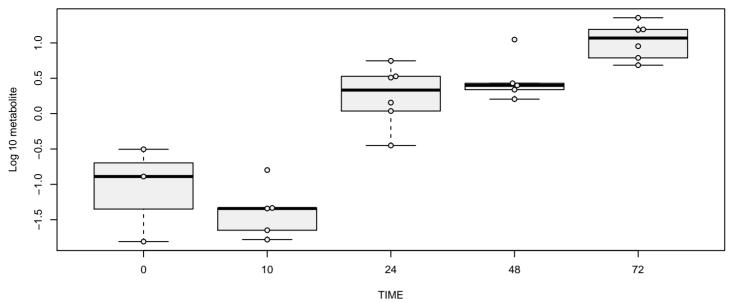


pyridoxal [cell]



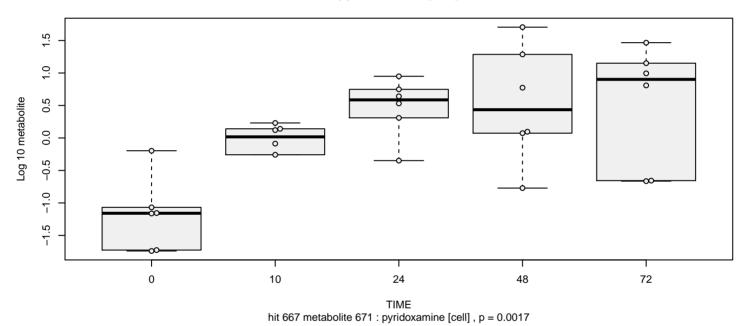
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 665 metabolite 669 : pyridoxal [cell] , p = 5.3e-06} \end{split}$$

pyridoxal phosphate [cell]

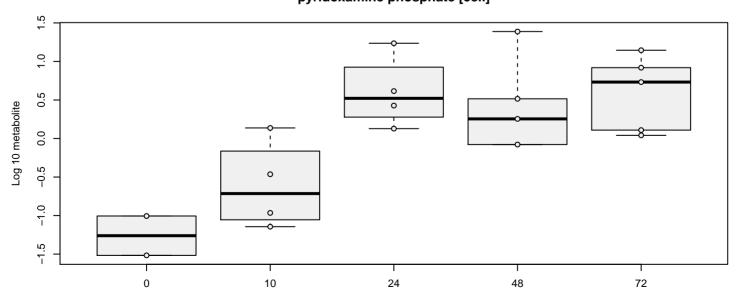


hit 666 metabolite 670 : pyridoxal phosphate [cell] , p = 2e-07

pyridoxamine [cell]

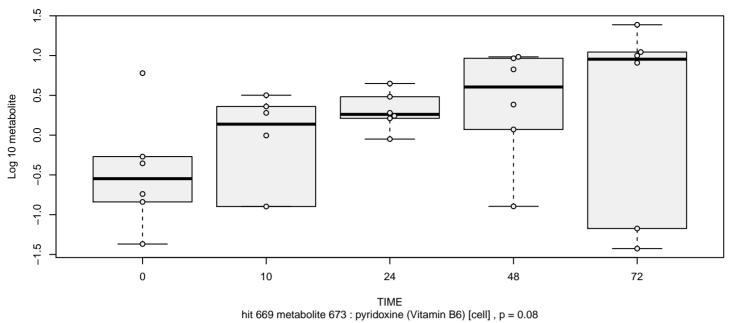


pyridoxamine phosphate [cell]

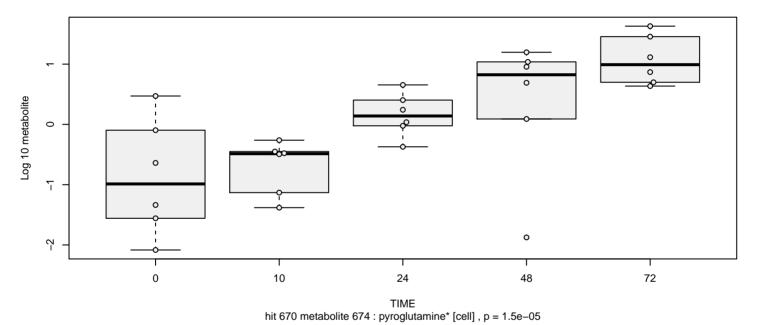


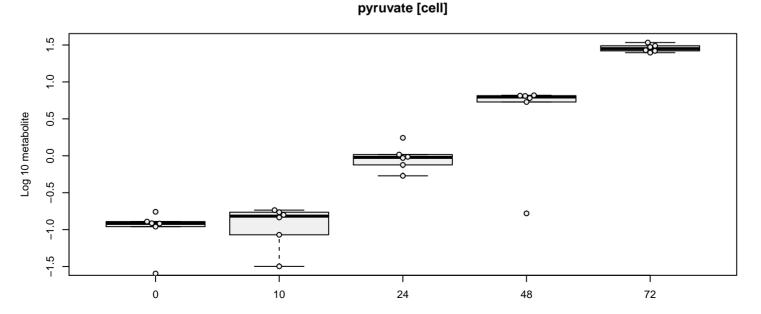
 $\label{eq:time} \begin{array}{c} \text{TIME} \\ \text{hit 668 metabolite 672: pyridoxamine phosphate [cell] , p = 0.044} \end{array}$

pyridoxine (Vitamin B6) [cell]



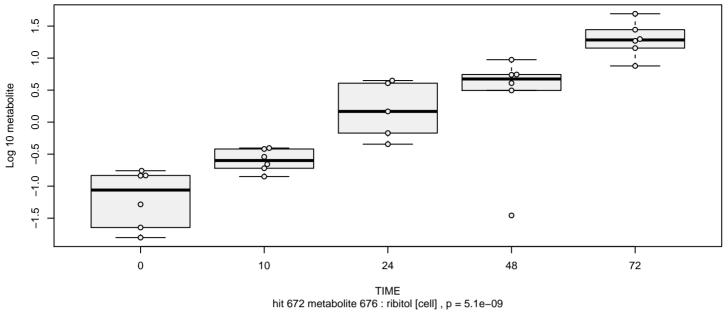
pyroglutamine* [cell]



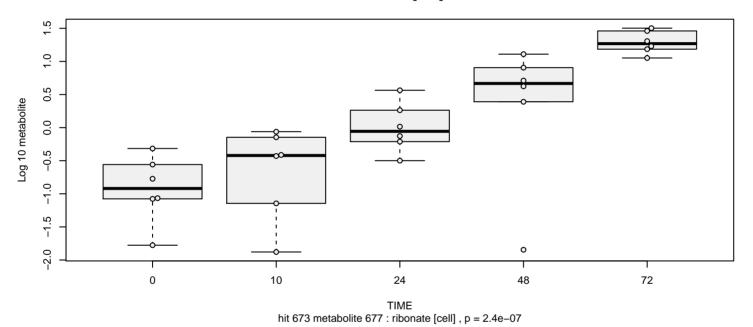


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 671 metabolite 675 : pyruvate [cell] , p = 5e-14} \end{split}$$

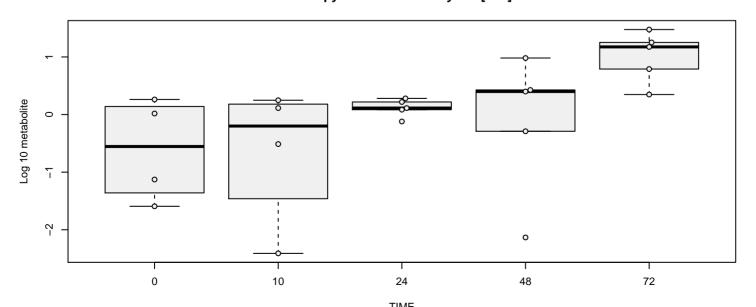
ribitol [cell]



ribonate [cell]

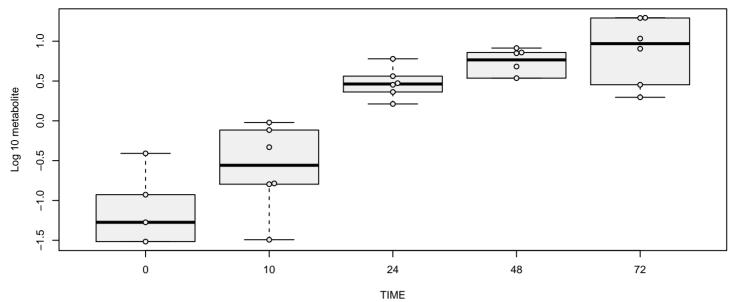


S-1-pyrroline-5-carboxylate [cell]



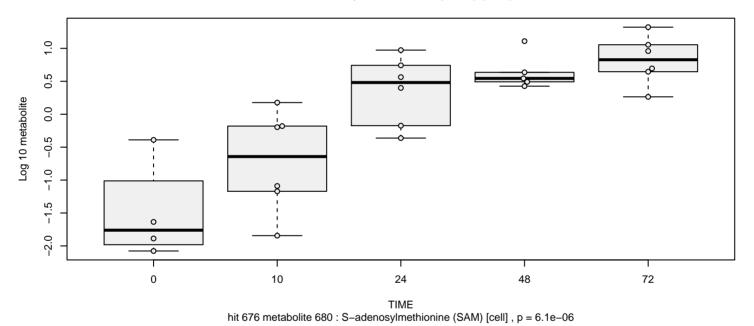
 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 674 metabolite 678 : S-1-pyrroline-5-carboxylate [cell] , $p = 0.0067$ }$

S-adenosylhomocysteine (SAH) [cell]

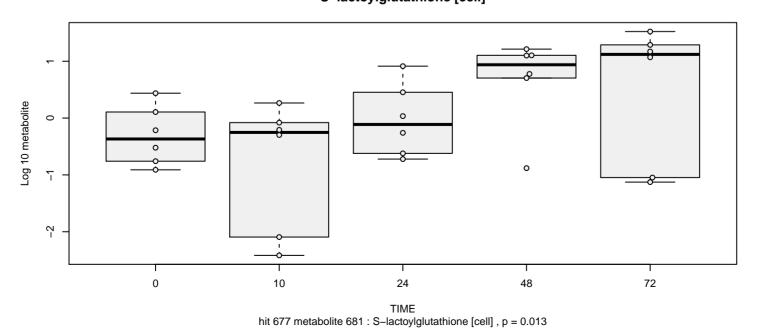


hit 675 metabolite 679 : S-adenosylhomocysteine (SAH) [cell] , p = 3.9e-05

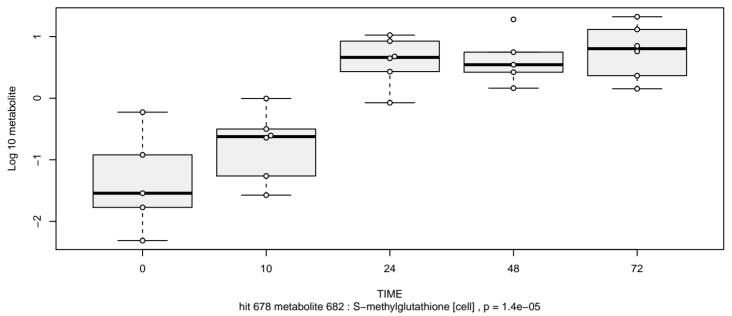
S-adenosylmethionine (SAM) [cell]



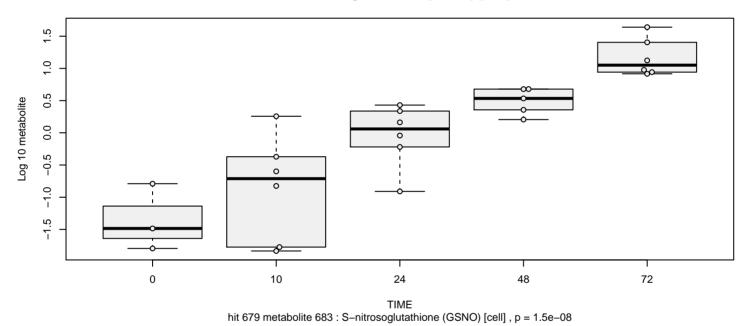
S-lactoylglutathione [cell]



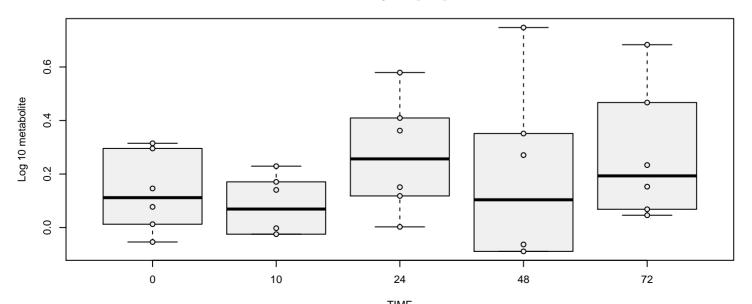
S-methylglutathione [cell]



S-nitrosoglutathione (GSNO) [cell]

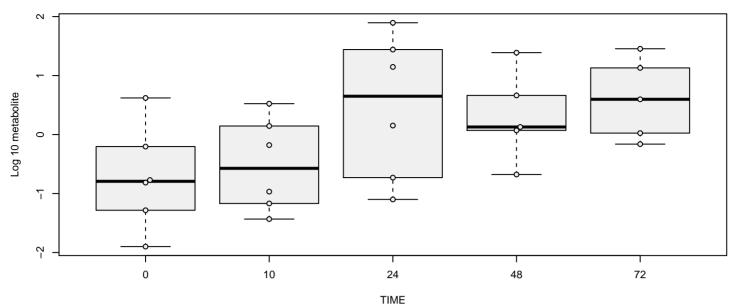


salicylate [cell]



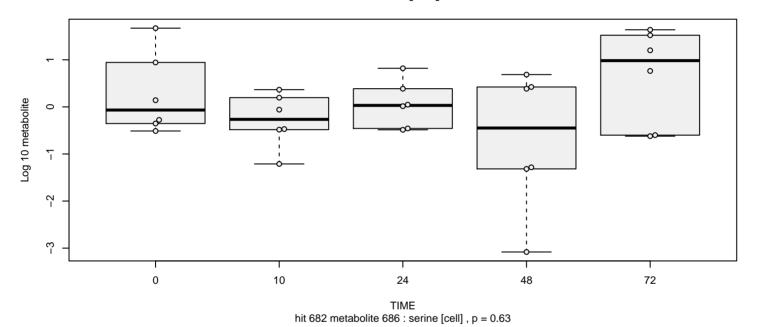
 $\label{time} \begin{array}{l} \text{TIME} \\ \text{hit 680 metabolite 684 : salicylate [cell] , p = 0.84} \end{array}$

sedoheptulose-7-phosphate [cell]

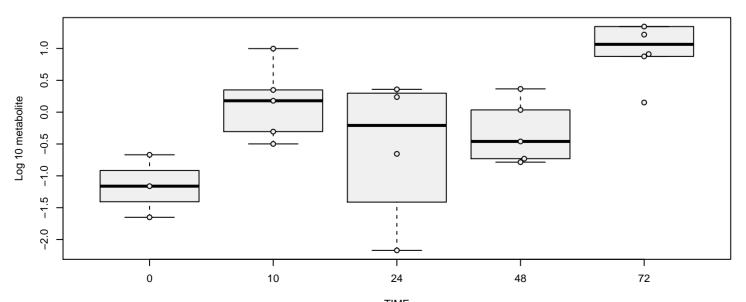


hit 681 metabolite 685 : sedoheptulose–7–phosphate [cell] , p = 0.012

serine [cell]

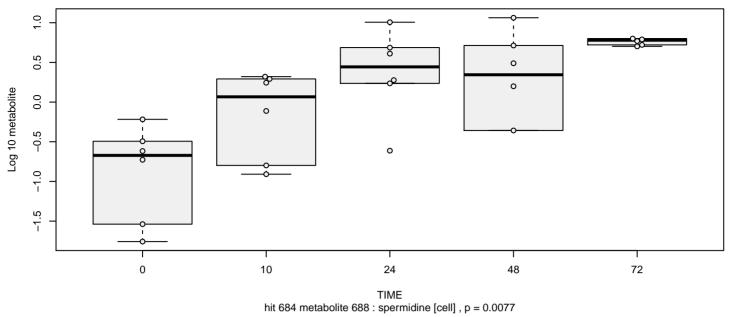


serotonin [cell]

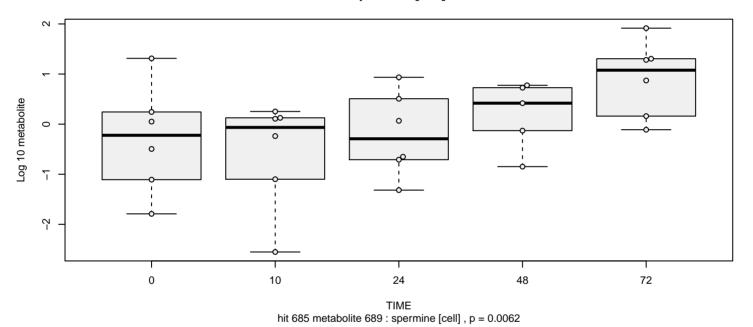


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 683 metabolite 687 : serotonin [cell] , } p = 0.0034 \end{split}$$

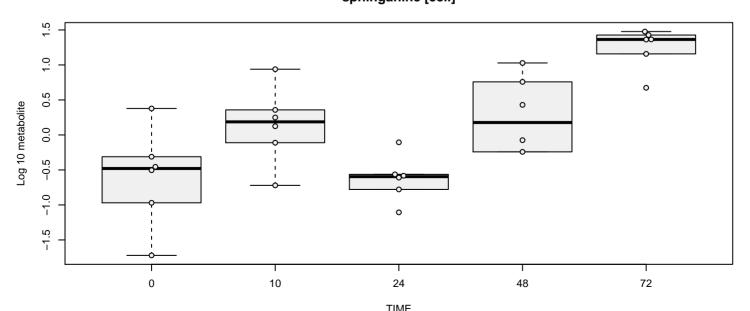
spermidine [cell]



spermine [cell]

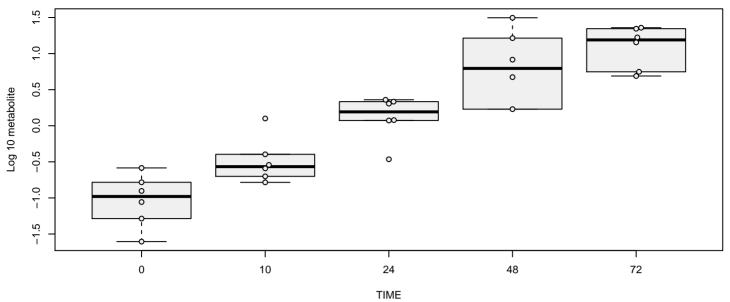


sphinganine [cell]



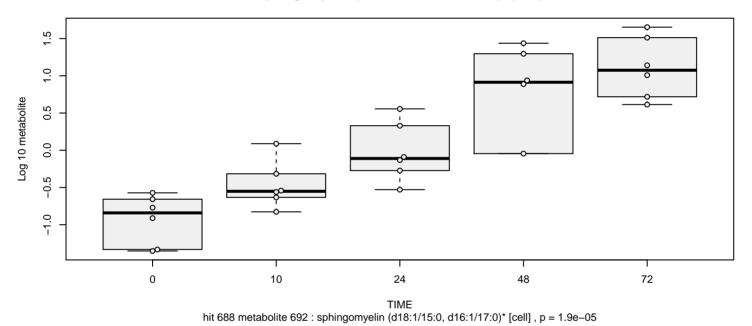
 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 686 metabolite 690 : sphinganine [cell] , p = 0.0026 \\ \mbox{}$

sphingomyelin (d18:1/14:0, d16:1/16:0)* [cell]

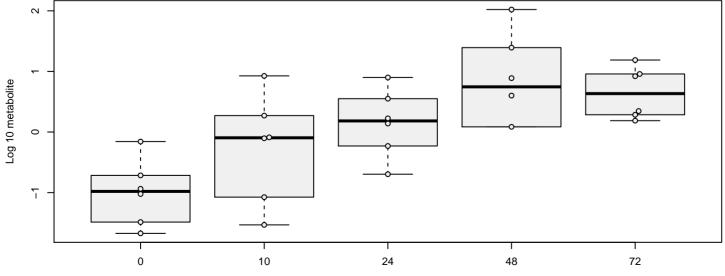


hit 687 metabolite 691 : sphingomyelin (d18:1/14:0, d16:1/16:0)* [cell] , p = 1e-05

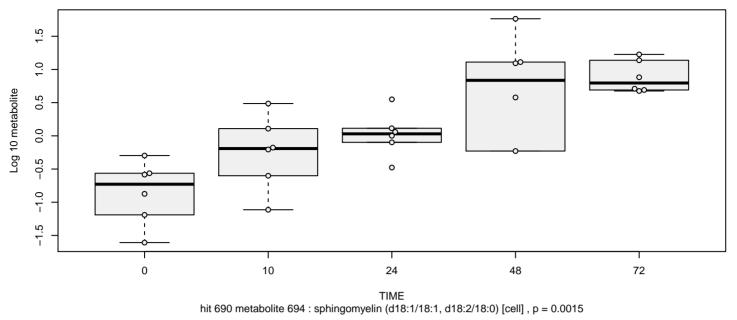
sphingomyelin (d18:1/15:0, d16:1/17:0)* [cell]



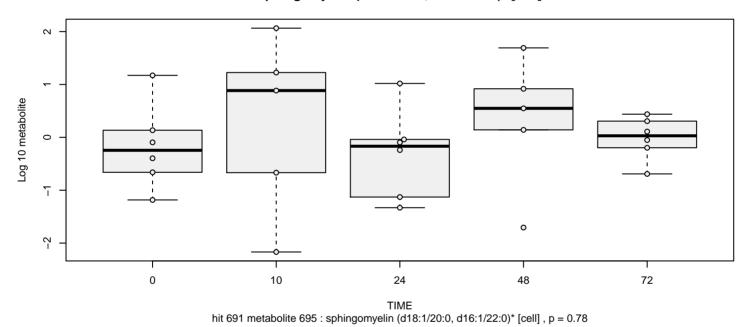
sphingomyelin (d18:1/17:0, d17:1/18:0, d19:1/16:0) [cell]



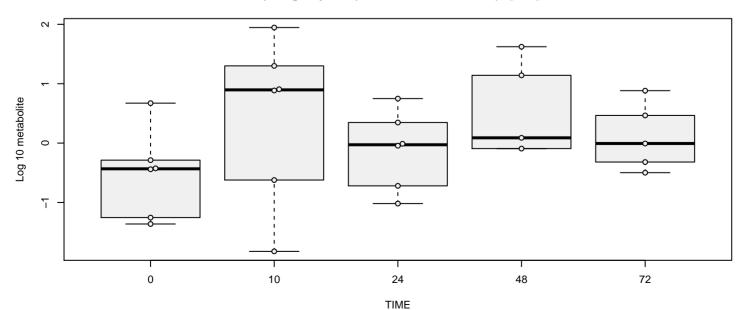
sphingomyelin (d18:1/18:1, d18:2/18:0) [cell]



sphingomyelin (d18:1/20:0, d16:1/22:0)* [cell]

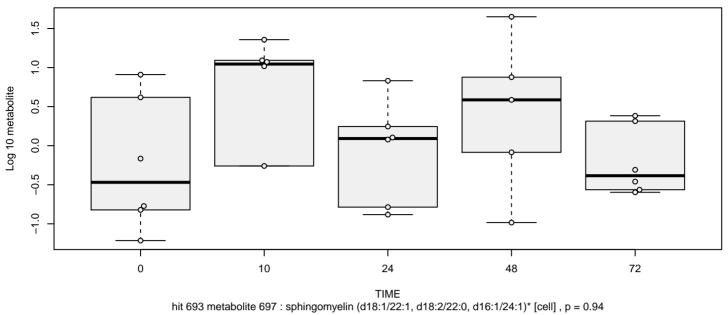


sphingomyelin (d18:1/20:1, d18:2/20:0)* [cell]

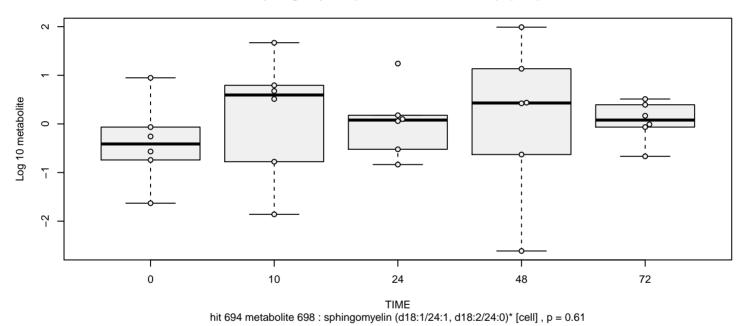


hit 692 metabolite 696 : sphingomyelin (d18:1/20:1, d18:2/20:0)* [cell] , p = 0.57

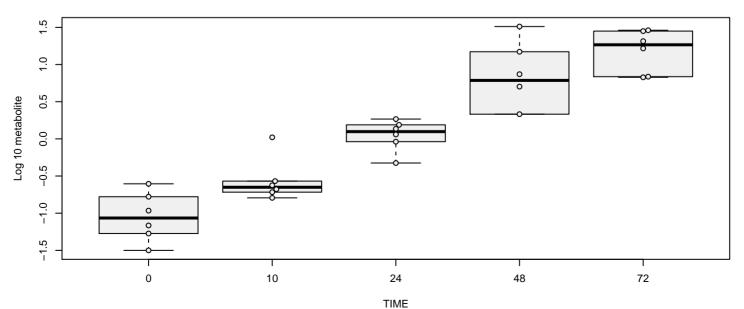
sphingomyelin (d18:1/22:1, d18:2/22:0, d16:1/24:1)* [cell]



sphingomyelin (d18:1/24:1, d18:2/24:0)* [cell]

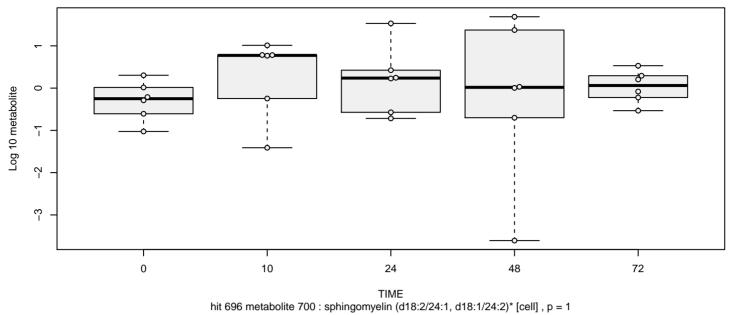


sphingomyelin (d18:2/16:0, d18:1/16:1)* [cell]

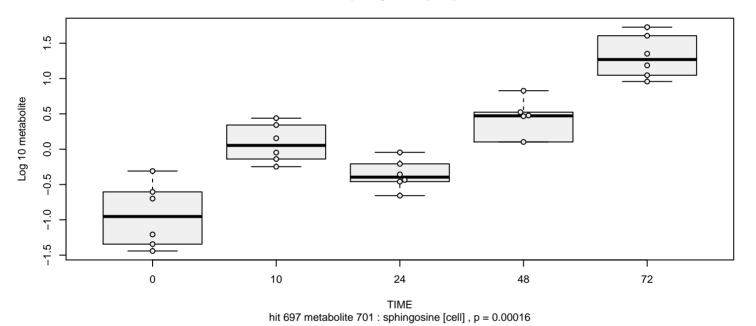


hit 695 metabolite 699 : sphingomyelin (d18:2/16:0, d18:1/16:1)* [cell] , p = 6.9e-07

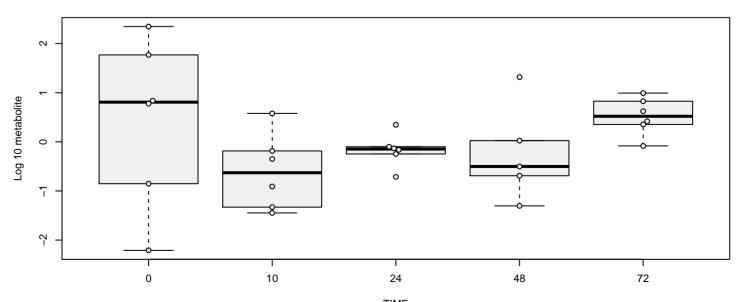
sphingomyelin (d18:2/24:1, d18:1/24:2)* [cell]



sphingosine [cell]

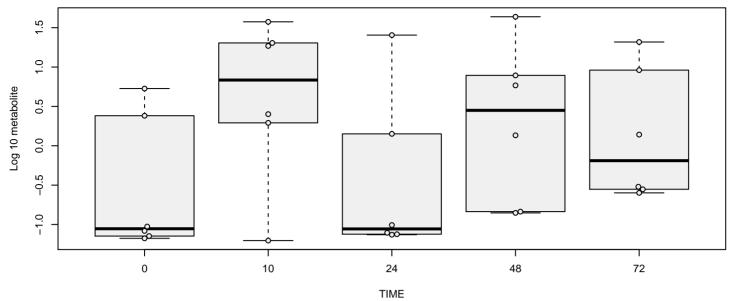


stachydrine [cell]



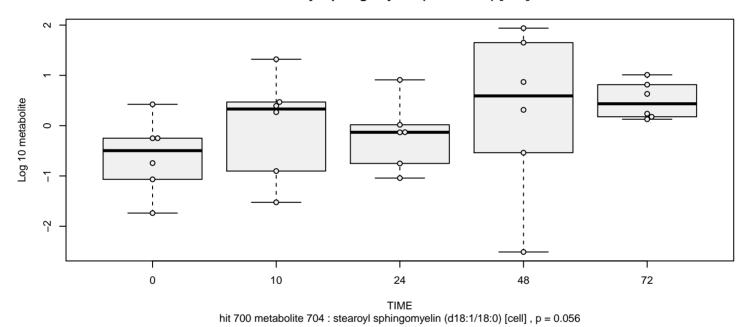
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 698 metabolite 702: stachydrine [cell] , p = 0.45} \end{split}$$

stearoyl ethanolamide [cell]

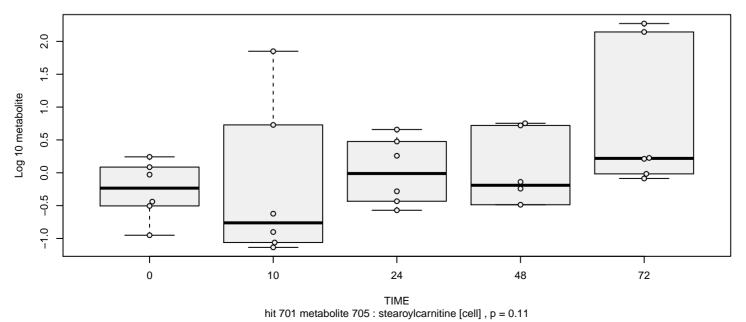


hit 699 metabolite 703 : stearoyl ethanolamide [cell] , p = 0.47

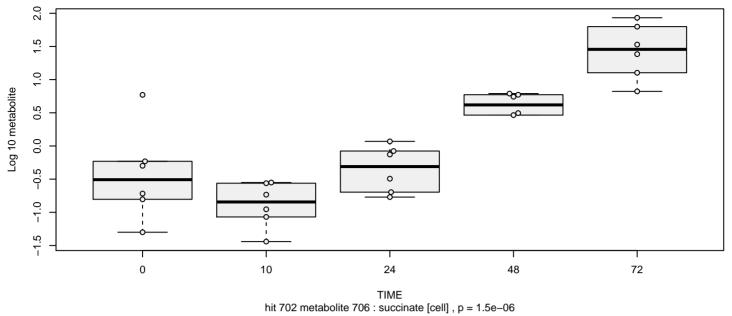
stearoyl sphingomyelin (d18:1/18:0) [cell]



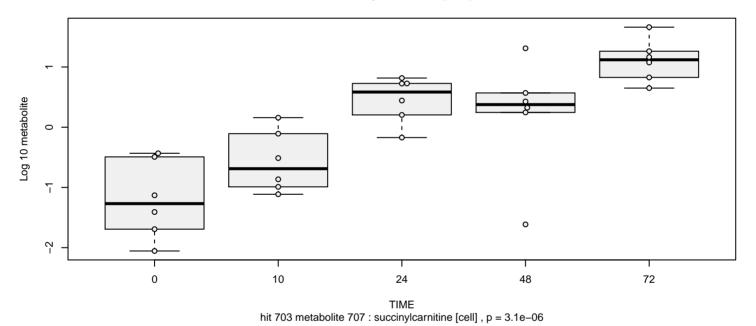
stearoylcarnitine [cell]



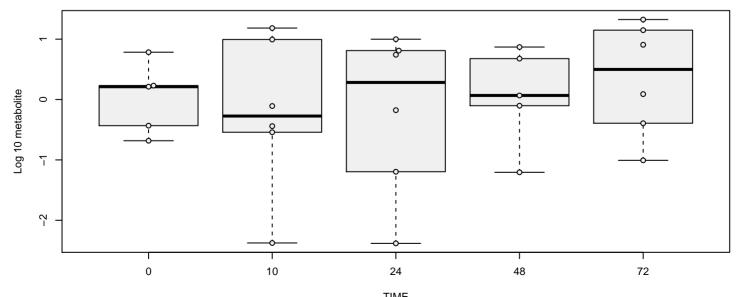
succinate [cell]



succinylcarnitine [cell]

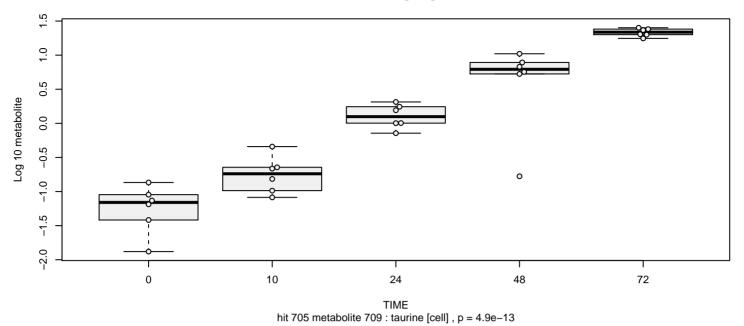


sulfate* [cell]

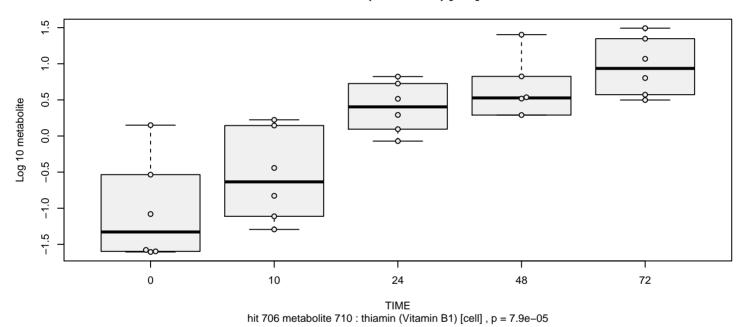


$$\label{eq:time_time} \begin{split} & \text{TIME} \\ & \text{hit 704 metabolite 708 : sulfate* [cell] , p = 0.39} \end{split}$$

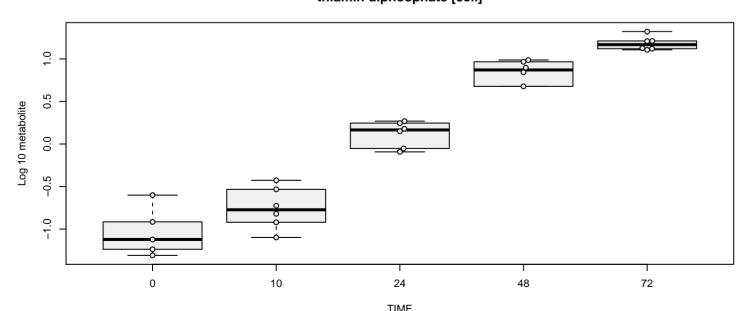
taurine [cell]



thiamin (Vitamin B1) [cell]

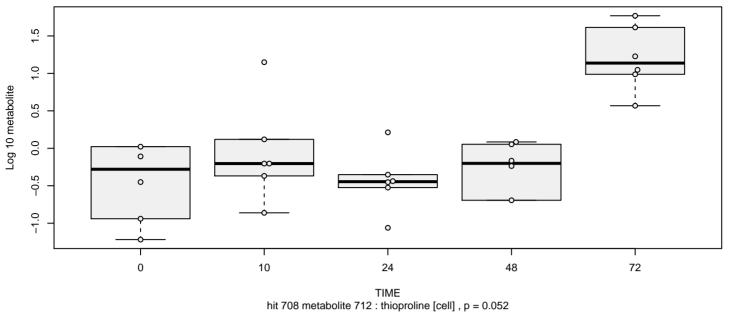


thiamin diphosphate [cell]

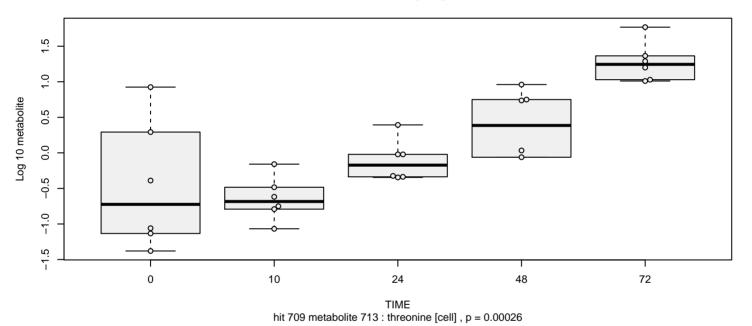


 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 707 metabolite 711 : thiamin diphosphate [cell] , p = 7.4e-07}$

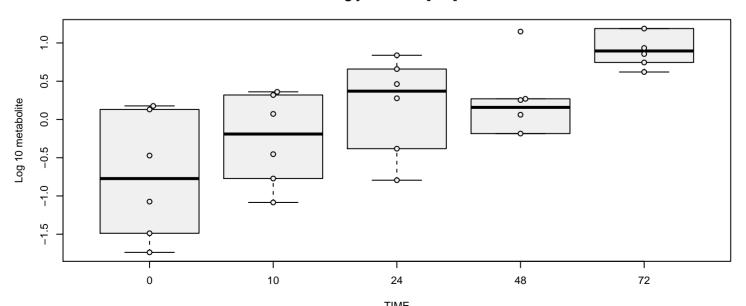
thioproline [cell]



threonine [cell]

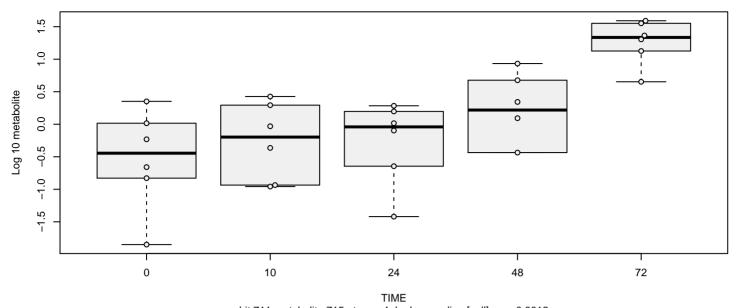


tiglylcarnitine [cell]



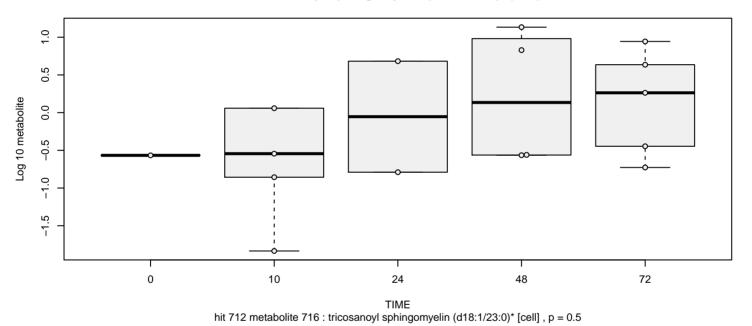
 $\label{eq:TIME} \mbox{hit 710 metabolite 714: tiglylcarnitine [cell] , p = 0.0034}$

trans-4-hydroxyproline [cell]

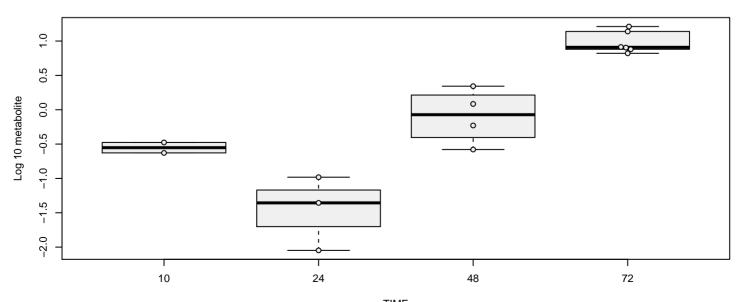


hit 711 metabolite 715 : trans-4-hydroxyproline [cell] , p = 0.0012

tricosanoyl sphingomyelin (d18:1/23:0)* [cell]

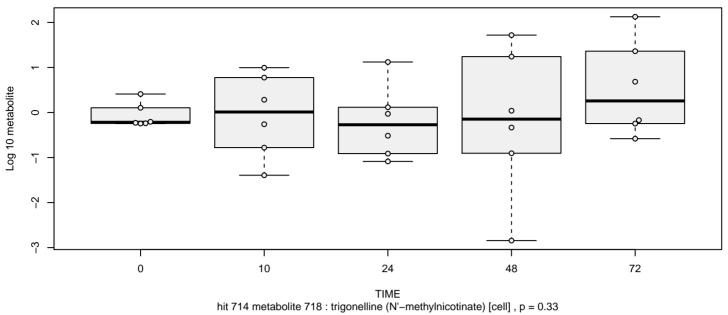


tricosenoate (23:1) [cell]

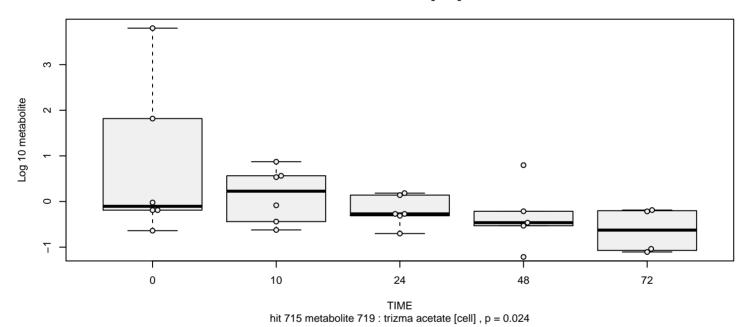


hit 713 metabolite 717 : tricosenoate (23:1) [cell] , p = 4.4e-05

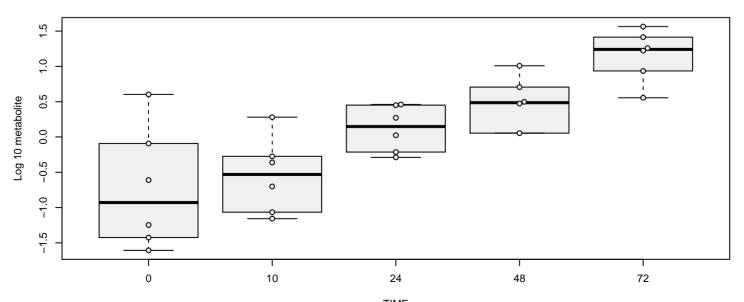
trigonelline (N'-methylnicotinate) [cell]



trizma acetate [cell]

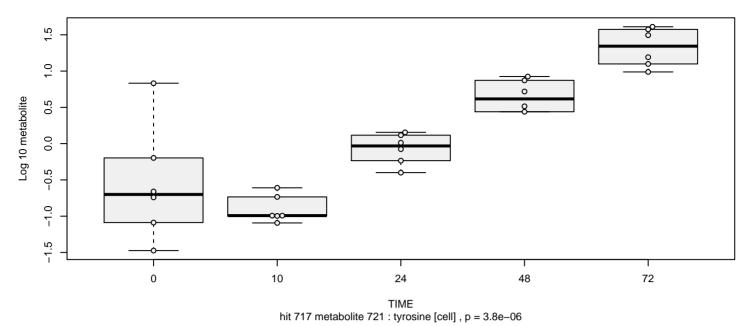


tryptophan [cell]

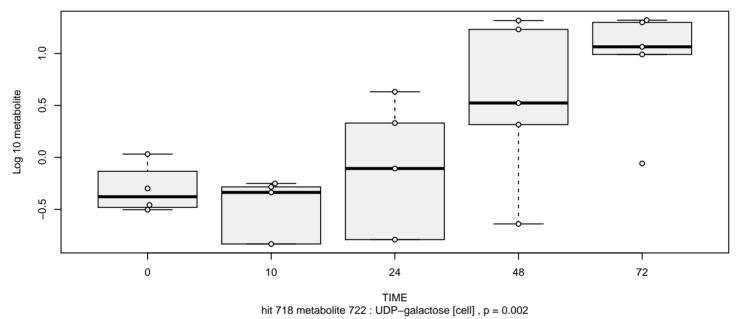


 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 716 metabolite 720 : tryptophan [cell] , p = 2e-04 \\ \mbox{}$

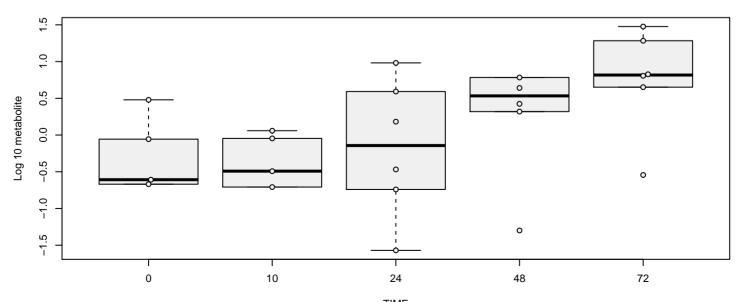
tyrosine [cell]



UDP-galactose [cell]

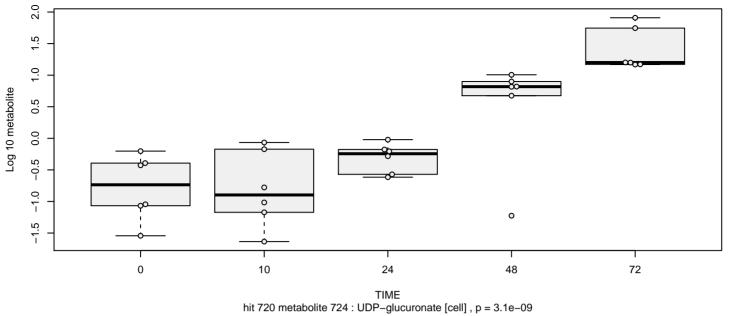


UDP-glucose [cell]

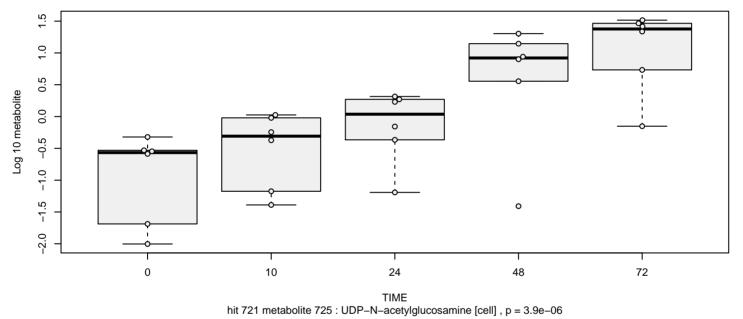


 $\label{eq:time} \begin{array}{c} \text{TIME} \\ \text{hit 719 metabolite 723 : UDP-glucose [cell] , p = 0.0022} \end{array}$

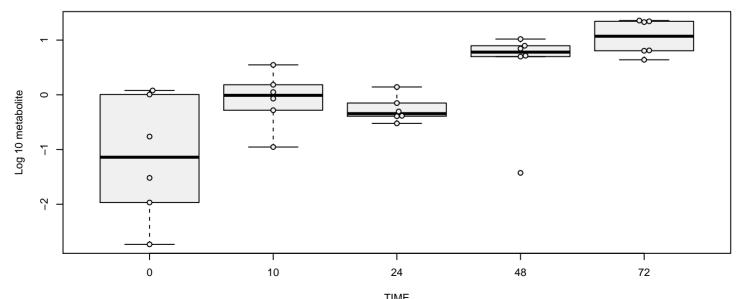
UDP-glucuronate [cell]



UDP-N-acetylglucosamine [cell]

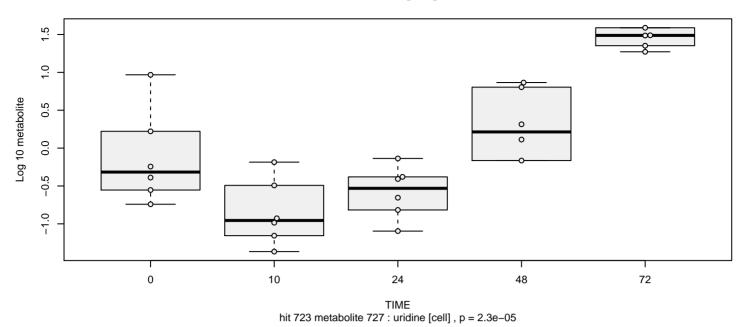


urate [cell]

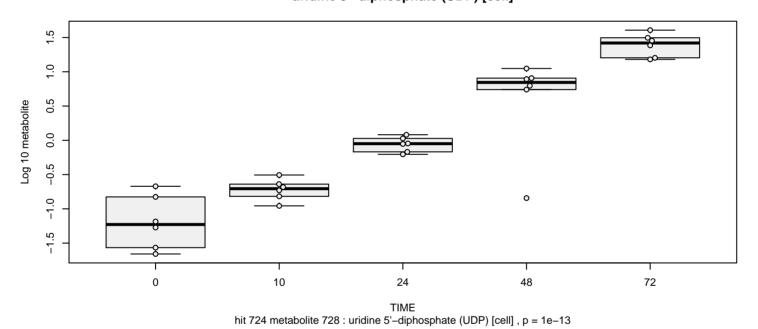


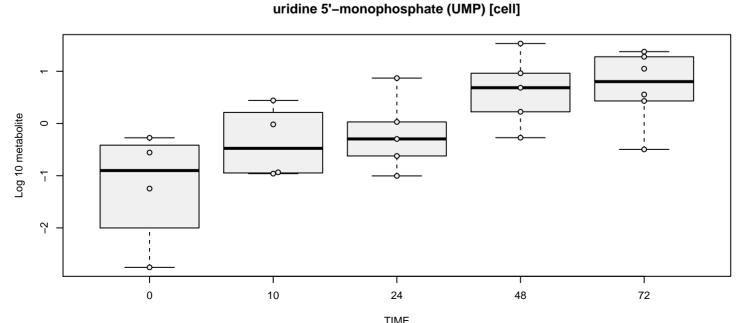
 $\label{eq:TIME} \begin{array}{c} \text{TIME} \\ \text{hit 722 metabolite 726 : urate [cell] , p = 1.6e-05} \end{array}$

uridine [cell]



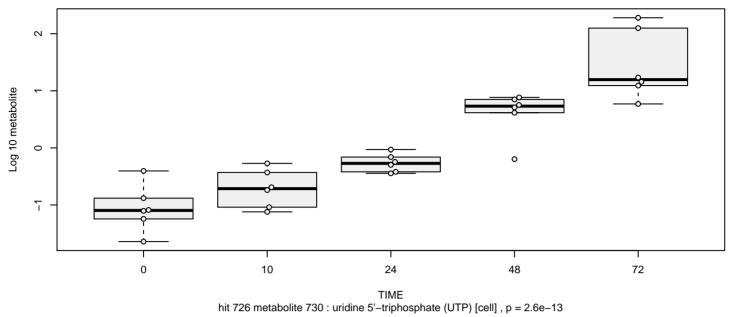
uridine 5'-diphosphate (UDP) [cell]



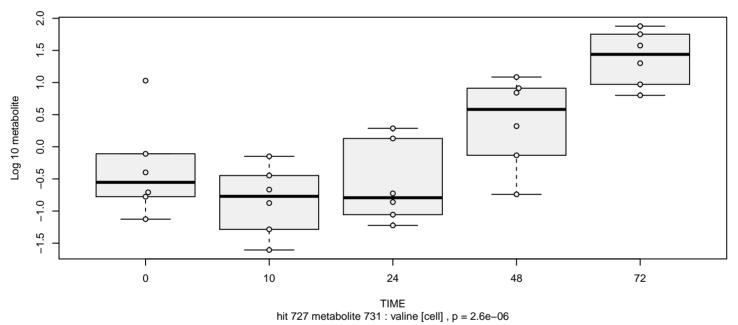


 $\label{eq:TIME} \mbox{TIME} \\ \mbox{hit 725 metabolite 729 : uridine 5'-monophosphate (UMP) [cell] , $p = 0.00046$}$

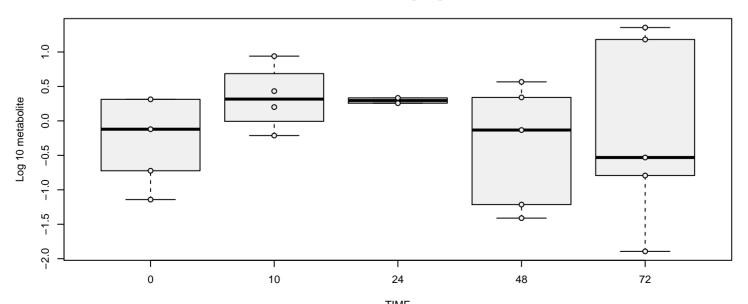
uridine 5'-triphosphate (UTP) [cell]



valine [cell]

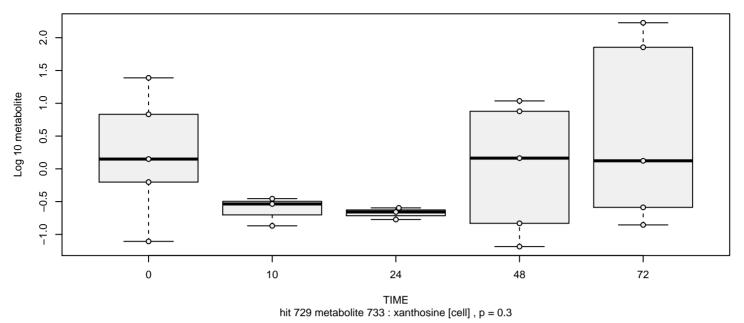


xanthine [cell]

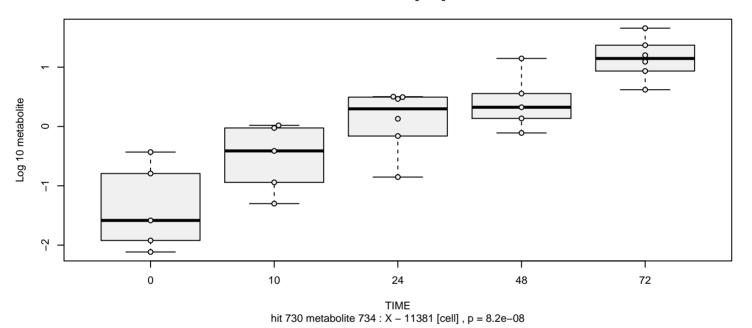


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 728 metabolite 732 : xanthine [cell] , p = 0.4} \end{split}$$

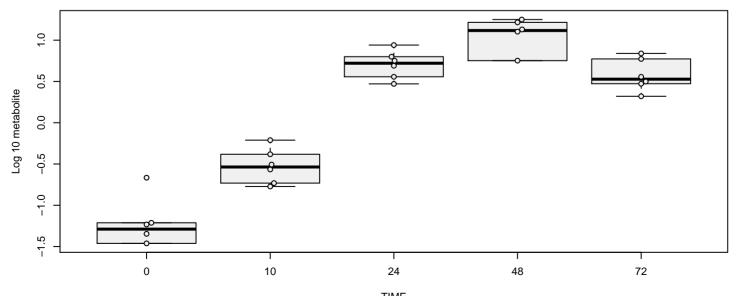
xanthosine [cell]



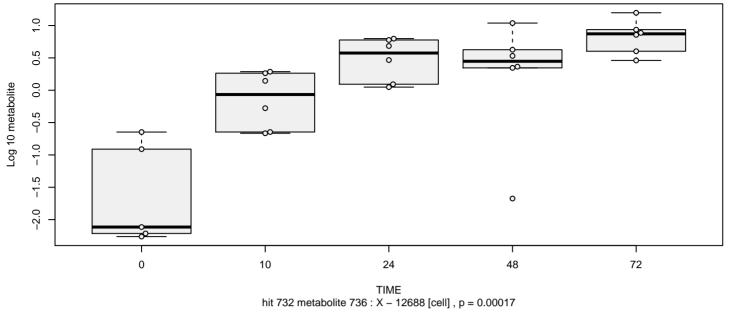
X - 11381 [cell]



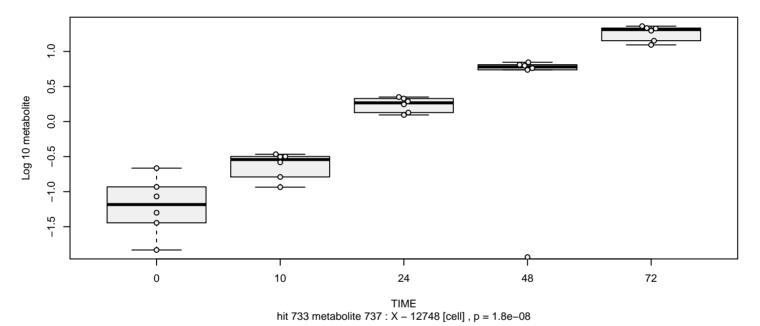
X - 12015 [cell]



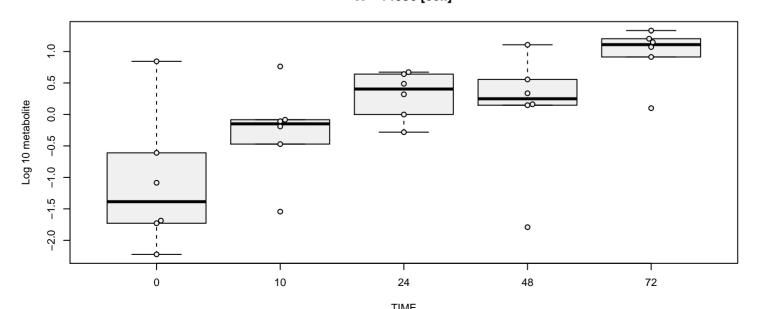
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 731 metabolite 735}: X - 12015 \text{ [cell]} \text{ , p = 0.00011} \end{split}$$



X - 12748 [cell]

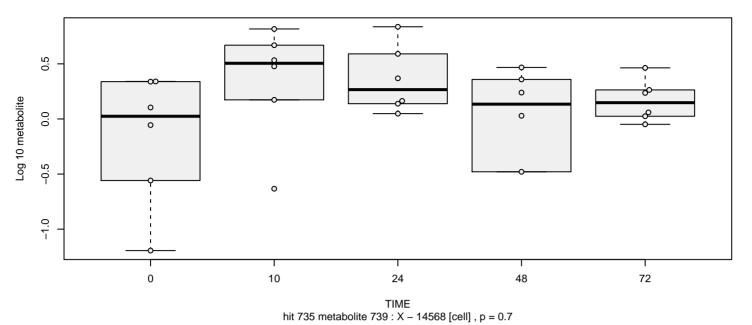


X - 14056 [cell]

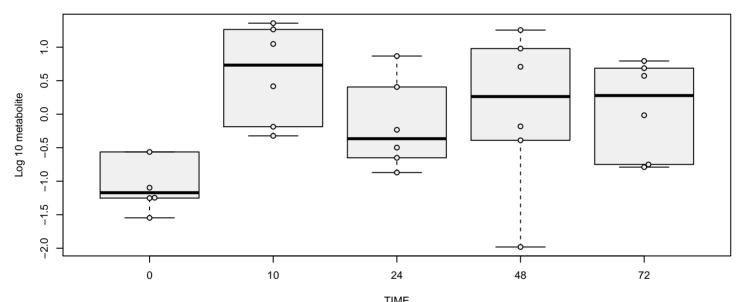


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 734 metabolite 738}: X - 14056 \text{ [cell]} \text{ , p} = 0.00038 \end{split}$$

X - 14568 [cell]

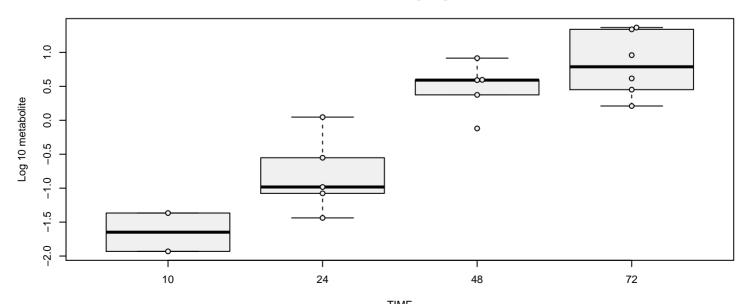


X - 15220 [cell]



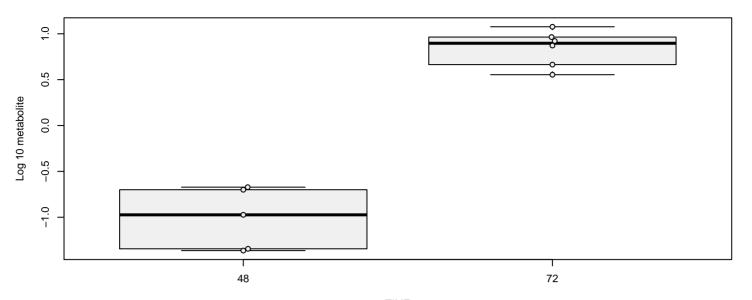
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 736 metabolite 740}: X - 15220 \text{ [cell] }, p = 0.65 \end{split}$$

X - 15245 [cell]



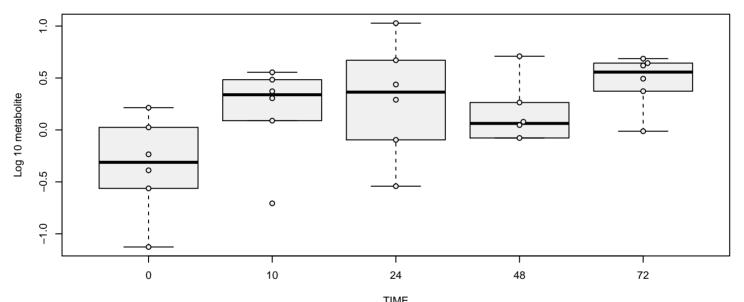
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 737 metabolite 741}: X - 15245 \text{ [cell]} \text{ , p} = 3.5e-06 \end{split}$$

X - 17677 [cell]



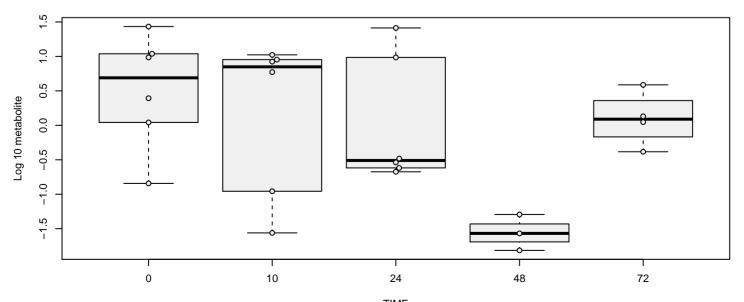
 $\label{eq:TIME} \begin{array}{c} \text{TIME} \\ \text{hit 738 metabolite 742 : } X - 17677 \text{ [cell] , } p = 1.1e-06 \end{array}$

X - 18779 [cell]

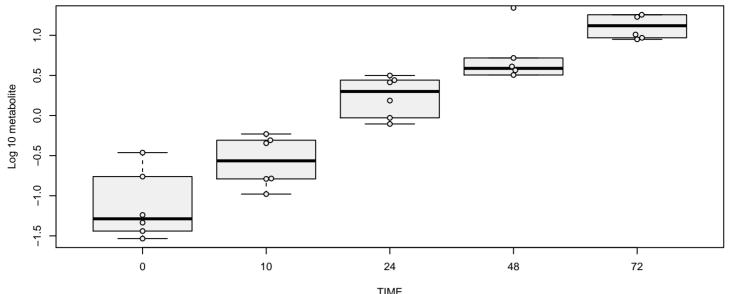


 $\label{eq:TIME} \begin{array}{c} \text{TIME} \\ \text{hit 739 metabolite 743 : } X - 18779 \text{ [cell] , } p = 0.58 \end{array}$

X - 21343 [cell]

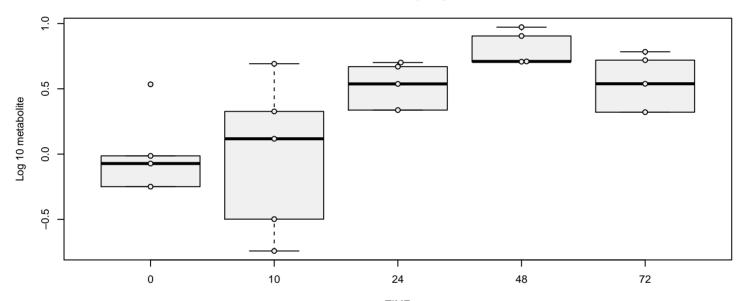


TIME hit 740 metabolite 744 : X - 21343 [cell] , p = 0.14



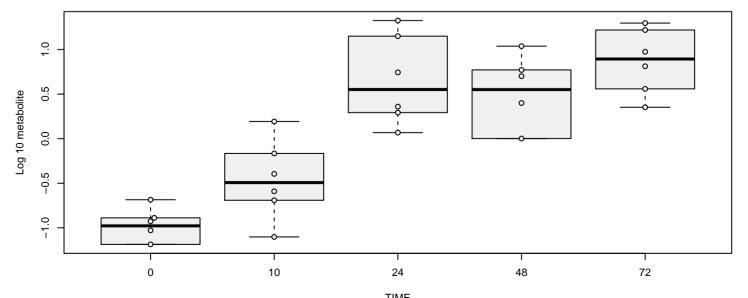
 $\label{eq:TIME} \begin{array}{c} \text{TIME} \\ \text{hit 741 metabolite 745}: X - 21365 \text{ [cell]} \text{ , p = } 5.8e-07 \end{array}$

X - 21891 [cell]



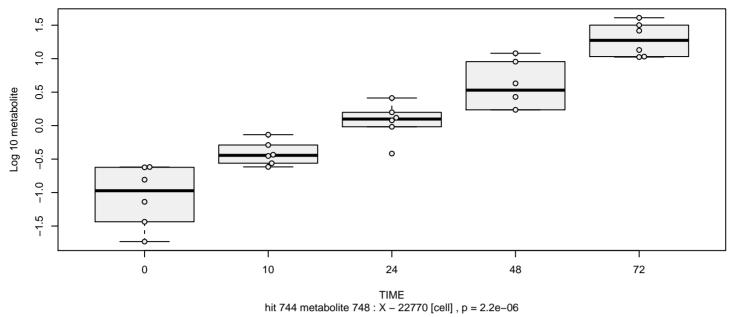
 $\label{eq:TIME} \begin{array}{c} \text{TIME} \\ \text{hit 742 metabolite 746}: X-21891 \text{ [cell] , p = 0.52} \end{array}$

X - 22768 [cell]

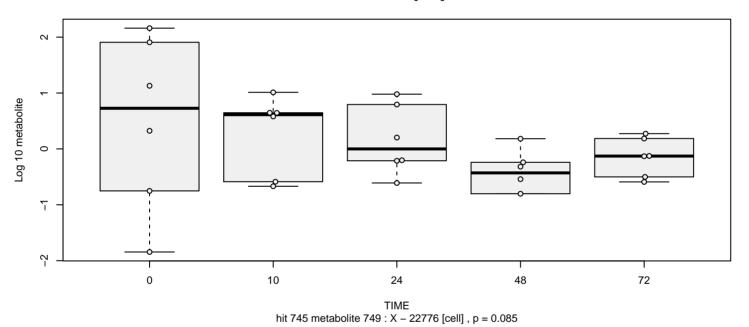


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 743 metabolite 747}: X - 22768 \text{ [cell]} \text{ , p} = 0.00058 \end{split}$$

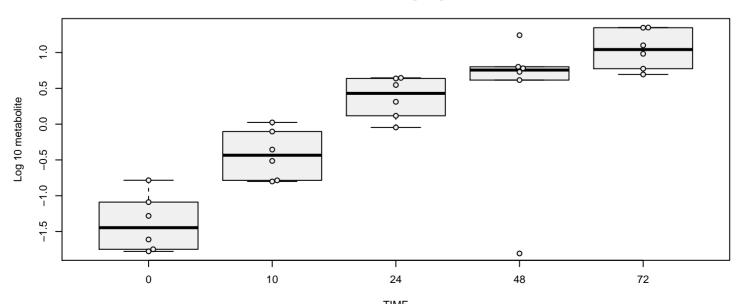
X - 22770 [cell]



X - 22776 [cell]

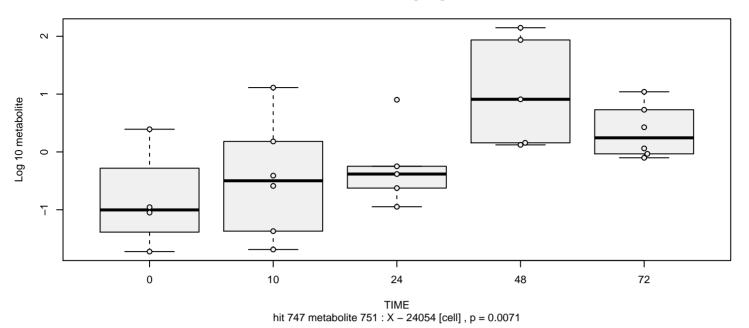


X - 24020 [cell]

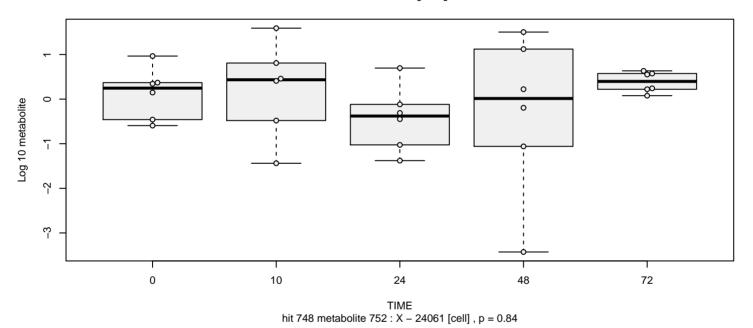


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 746 metabolite 750}: X - 24020 \text{ [cell]} \text{ , p = 8.1e-07} \end{split}$$

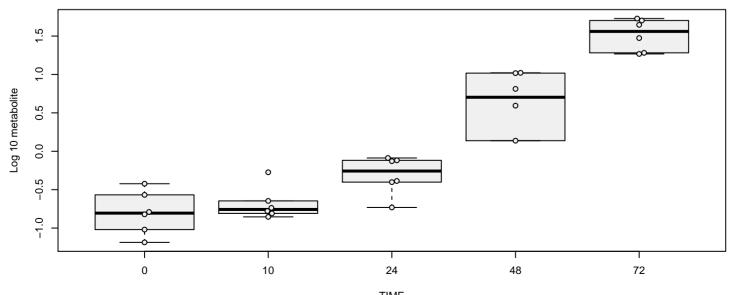
X - 24054 [cell]



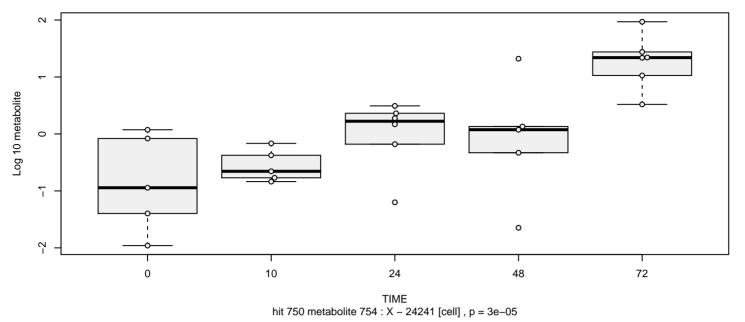
X - 24061 [cell]



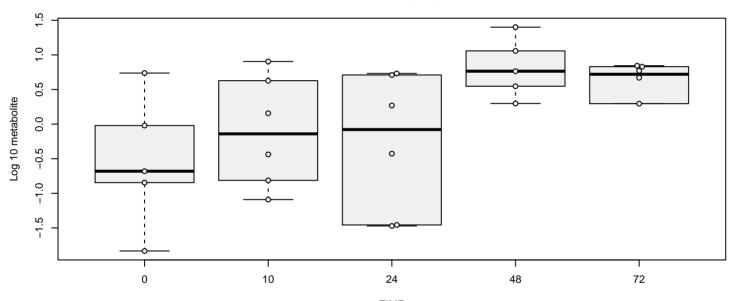
X - 24097 [cell]



$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 749 metabolite 753}: X - 24097 \text{ [cell] , p = 5.6e-09} \end{split}$$

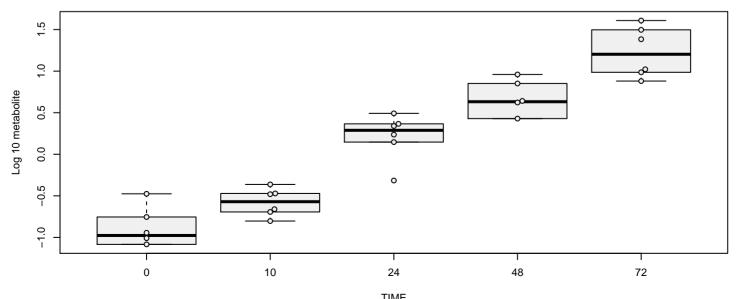


X - 24435 [cell]

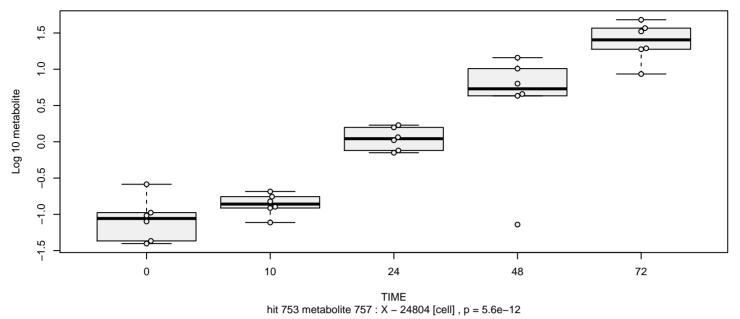


$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 751 metabolite 755}: X-24435 \text{ [cell] , p = 0.13} \end{split}$$

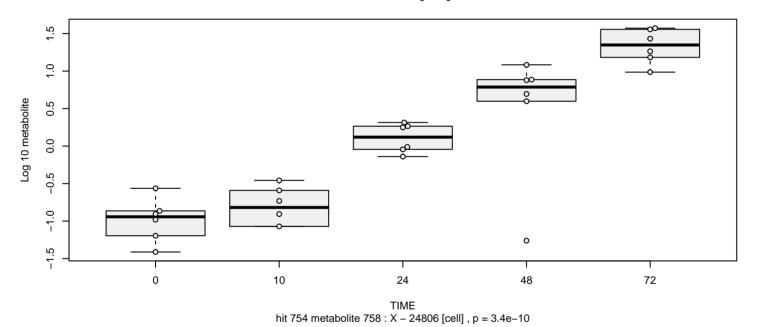
X - 24803 [cell]



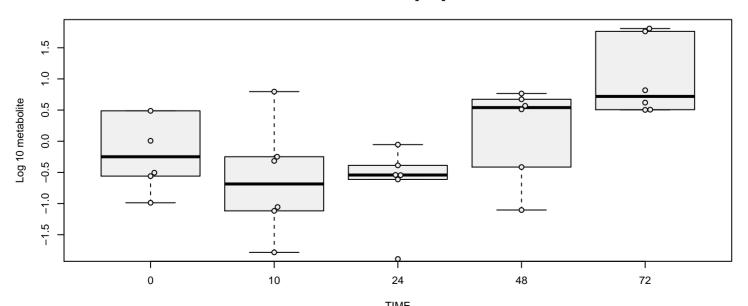
$$\label{eq:TIME} \begin{split} & \text{TIME} \\ & \text{hit 752 metabolite 756}: X - 24803 \text{ [cell] , p = 3.7e-06} \end{split}$$



X - 24806 [cell]



X - 24831 [cell]



 $\label{eq:TIME} \begin{array}{c} \text{TIME} \\ \text{hit 755 metabolite 759}: X - 24831 \text{ [cell]} \text{ , p = 0.012} \end{array}$