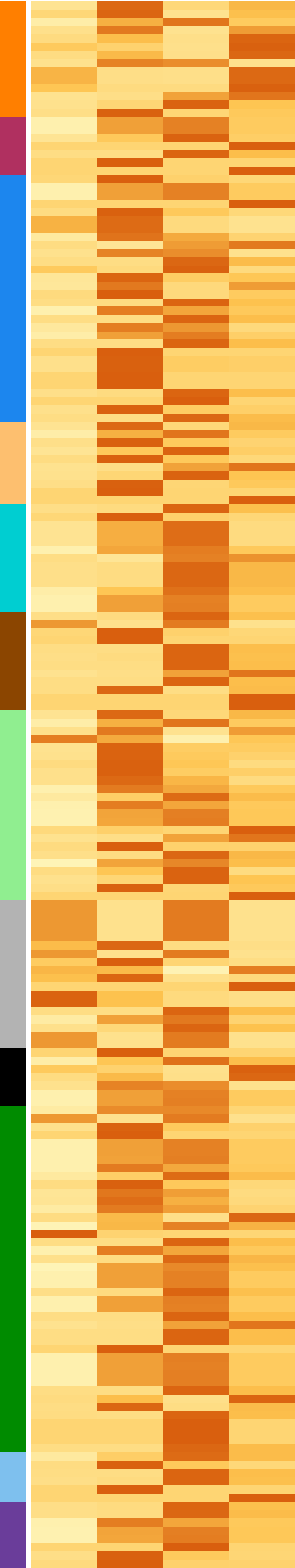


Color Key



Row Z-Score



Diesel

Xylene

Hexane

Hexadecane

E1.1.1.1, adh; alcohol dehydrogenase [EC:1.1.1.1]
bdhAB; butanol dehydrogenase [EC:1.1.1.-]
frmA, ADH5, adhC; S-(hydroxymethyl)glutathione dehydrogenase / alcohol dehydrogenase [EC:1.1.1.284 1.1.1.1]
ALDH; aldehyde dehydrogenase (NAD+) [EC:1.2.1.3]
fdhA; glutathione-independent formaldehyde dehydrogenase [EC:1.2.1.46]
E3.8.1.2, 2--haloacid dehalogenase [EC:3.8.1.2]
dehH; haloacetate dehalogenase [EC:3.8.1.3]
dhaA; haloalkane dehalogenase [EC:3.8.1.5]
nifD; nitrogenase molybdenum-iron protein alpha chain [EC:1.18.6.1]
nifH; nitrogenase iron protein NifH [EC:1.18.6.1]
nifK; nitrogenase molybdenum-iron protein beta chain [EC:1.18.6.1]
adhE; acetaldehyde dehydrogenase / alcohol dehydrogenase [EC:1.2.1.10 1.1.1.1]
adhP; alcohol dehydrogenase, propanol--preferring [EC:1.1.1.1]
yiaY; alcohol dehydrogenase [EC:1.1.1.1]
pcaG; protocatechuate 3,4--dioxygenase, alpha subunit [EC:1.13.11.3]
pcaH; protocatechuate 3,4--dioxygenase, beta subunit [EC:1.13.11.3]
E1.14.13.1; salicylate hydroxylase [EC:1.14.13.1]
CYP81F; indol-3-yl--methylglucosinolate hydroxylase [EC:1.14.-.-]
desB, galA; gallate dioxigenase [EC:1.13.11.57]
nahAB, nagAB, ndoA, nbzAB, dntAB; naphthalene 1,2--dioxygenase ferredoxin component
nahAa, nagAa, ndoR, nbzAa, dntAa; naphthalene 1,2--dioxygenase ferredoxin reductase component [EC:1.18.1.7]
xyfC; benzaldehyde dehydrogenase (NAD) [EC:1.2.1.28]
pcaG; protocatechuate 3,4--dioxygenase, alpha subunit [EC:1.13.11.3]
pcaH; protocatechuate 3,4--dioxygenase, beta subunit [EC:1.13.11.3]
CYP81F; indol-3-yl--methylglucosinolate hydroxylase [EC:1.14.-.-]
ytmi; uncharacterized N--acetyltransferase [EC:2.3.1.-]
atoD; acetate CoA/acetoacetate CoA--transferase alpha subunit [EC:2.8.3.8 2.8.3.9]
atoA; acetate CoA/acetoacetate CoA--transferase beta subunit [EC:2.8.3.8 2.8.3.9]
aes; acetyl esterase [EC:3.1.1.-]
E3.1.3.1, phoA, phoB; alkaline phosphatase [EC:3.1.3.1]
PHO; acid phosphatase [EC:3.1.3.2]
appA; 4--phytase / acid phosphatase [EC:3.1.3.26 3.1.3.2]
E3.1.3.41; 4--nitrophenyl phosphatase [EC:3.1.3.41]
phoD; alkaline phosphatase D [EC:3.1.3.1]
E3.5.1.4, amfE; amidase [EC:3.5.1.4]
E3.5.5.1; nitrilase [EC:3.5.5.1]
acyP; acylphosphatase [EC:3.6.1.7]
paafF, echA; enoyl--CoA hydratase [EC:4.2.1.17]
aphA; acid phosphatase (class B) [EC:3.1.3.2]
vanA; vanillate monooxygenase [EC:1.14.13.82]
vanB; vanillate monooxygenase ferredoxin subunit
desB, galA; gallate dioxigenase [EC:1.13.11.57]
badA; benzoate--CoA ligase [EC:6.2.1.25]
antA; anthranilate 1,2--dioxygenase (deaminating, decarboxylating) large subunit [EC:1.14.12.1]
antB; anthranilate 1,2--dioxygenase (deaminating, decarboxylating) small subunit [EC:1.14.12.1]
abmG; 2--aminobenzoate--CoA ligase [EC:6.2.1.32]
E1.14.13.40; anthraniloyl--CoA monooxygenase [EC:1.14.13.40]
phoN; acid phosphatase (class A) [EC:3.1.3.2]
lgt; 2--pyrone--4,6--dicarboxylate lactonase [EC:3.1.1.57]
antC; anthranilate 1,2--dioxygenase reductase component [EC:1.18.1.-]
DHBD; 2,3--dihydroxybenzoate decarboxylase [EC:4.1.1.46]
E1.1.1.1, adh; alcohol dehydrogenase [EC:1.1.1.1]
frmA, ADH5, adhC; S-(hydroxymethyl)glutathione dehydrogenase / alcohol dehydrogenase [EC:1.1.1.284 1.1.1.1]
mbtN, fadE14; acyl--ACP dehydrogenase [EC:1.3.99.-]
E1.14.13.1; salicylate hydroxylase [EC:1.14.13.1]
ytmi; uncharacterized N--acetyltransferase [EC:2.3.1.-]
adhE; acetaldehyde dehydrogenase / alcohol dehydrogenase [EC:1.2.1.10 1.1.1.1]
adhP; alcohol dehydrogenase, propanol--preferring [EC:1.1.1.1]
yiaY; alcohol dehydrogenase [EC:1.1.1.1]
nahAB, nagAB, ndoA, nbzAB, dntAB; naphthalene 1,2--dioxygenase ferredoxin component
nahAa, nagAa, ndoR, nbzAa, dntAa; naphthalene 1,2--dioxygenase ferredoxin reductase component [EC:1.18.1.7]
E1.1.1.90; aryl--alcohol dehydrogenase [EC:1.1.1.90]
xyfC; benzaldehyde dehydrogenase (NAD) [EC:1.2.1.28]
sdhA, fhdA; succinate dehydrogenase / fumarate reductase, flavoprotein subunit [EC:1.3.5.1 1.3.5.4]
sdhB, fhdB; succinate dehydrogenase / fumarate reductase, iron--sulfur subunit [EC:1.3.5.1 1.3.5.4]
sdhC, fhdC; succinate dehydrogenase / fumarate reductase, cytochrome b subunit
sdhD, fhdD; succinate dehydrogenase / fumarate reductase, membrane anchor subunit
frdA; fumarate reductase flavoprotein subunit [EC:1.3.5.4]
frdB; fumarate reductase iron--sulfur subunit [EC:1.3.5.4]
frdC; fumarate reductase subunit C
frdD; fumarate reductase subunit D
E3.1.1.45; carboxymethylenebutenolidase [EC:3.1.1.45]
catB; muconate cycloisomerase [EC:5.5.1.1]
catA; catechol 1,2--dioxygenase [EC:1.13.11.1]
E1.1.1.90; aryl--alcohol dehydrogenase [EC:1.1.1.90]
E1.2.1.10; acetaldehyde dehydrogenase (acetylating) [EC:1.2.1.10]
xyfC; benzaldehyde dehydrogenase (NAD) [EC:1.2.1.28]
dmpB, xyfE; catechol 2,3--dioxygenase [EC:1.13.11.2]
mhpE; 4--hydroxy 2--oxovalerate aldolase [EC:4.1.3.39]
mhpD; 2--keto--4--pentenoate hydratase [EC:4.2.1.80]
eutE; aldehyde dehydrogenase
adhE; acetaldehyde dehydrogenase / alcohol dehydrogenase [EC:1.2.1.10 1.1.1.1]
mhpF; acetaldehyde dehydrogenase [EC:1.2.1.10]
dmpC, xyfG, praB; aminomuconate--semialdehyde/2--hydroxymuconate--6--semialdehyde dehydrogenase [EC:1.2.1.32 1.2.1.85]
cmtC, dhbA; 2,3--dihydroxy--p--cumate/2,3--dihydroxybenzoate 3,4--dioxygenase [EC:1.13.11.- 1.13.11.14]
cmtD, dhbB; HCOMODA/2--hydroxy--3--carboxy--muconic semialdehyde decarboxylase [EC:4.1.1.-]
E1.1.1.1, adh; alcohol dehydrogenase [EC:1.1.1.1]
frmA, ADH5, adhC; S-(hydroxymethyl)glutathione dehydrogenase / alcohol dehydrogenase [EC:1.1.1.284 1.1.1.1]
ALDH; aldehyde dehydrogenase (NAD+) [EC:1.2.1.3]
ACADS; bcd; butyryl--CoA dehydrogenase [EC:1.3.8.1]
ACADM; acd; acyl--CoA dehydrogenase [EC:1.3.8.7]
GCDH; gdhH; glutaryl--CoA dehydrogenase [EC:1.3.8.6]
ACADL; long--chain--acyl--CoA dehydrogenase [EC:1.3.8.8]
alkB_2, alkM; alkane 1--monooxygenase [EC:1.14.15.3]
hcaD; 3--phenylpropionate/trans--cinnamate dioxigenase ferredoxin reductase component [EC:1.18.1.3]
E2.3.1.9, atoB; acetyl--CoA C--acetyltransferase [EC:2.3.1.9]
fadA, fadI; acetyl--CoA acyltransferase [EC:2.3.1.16]
paafF, echA; enoyl--CoA hydratase [EC:4.2.1.17]
fadJ; 3--hydroxyacyl--CoA dehydrogenase / enoyl--CoA hydratase / 3--hydroxybutyryl--CoA epimerase [EC:1.1.1.35 4.2.1.17 5.1.2.3]
fadB; 3--hydroxyacyl--CoA dehydrogenase / enoyl--CoA hydratase / 3--hydroxybutyryl--CoA epimerase / enoyl--CoA isomerase [EC:1.1.1.35 4.2.1.17 5.1.2.3 5.1.2.3.1]
ACSL; lsdD; long--chain acyl--CoA synthetase [EC:6.2.1.3]
adhE; acetaldehyde dehydrogenase / alcohol dehydrogenase [EC:1.2.1.10 1.1.1.1]
rubB, alkT; rubredoxin---NAD+ reductase [EC:1.18.1.1]
aas; acyl--lacyl--carrier--protein--phospholipid O--acyltransferase / long--chain--fatty--acid--[acyl--carrier--protein] ligase [EC:2.3.1.40 6.2.1.20]
fadE; acyl--CoA dehydrogenase [EC:1.3.99.-]
fadN; 3--hydroxyacyl--CoA dehydrogenase [EC:1.1.1.1.35]
adhP; alcohol dehydrogenase, propanol--preferring [EC:1.1.1.1]
yiaY; alcohol dehydrogenase [EC:1.1.1.1]
nahAa, nagAa, ndoR, nbzAa, dntAa; naphthalene 1,2--dioxygenase ferredoxin reductase component [EC:1.18.1.7]
porA; pyruvate ferredoxin oxidoreductase alpha subunit [EC:1.2.7.1]
porB; pyruvate ferredoxin oxidoreductase beta subunit [EC:1.2.7.1]
porD; pyruvate ferredoxin oxidoreductase delta subunit [EC:1.2.7.1]
porG; pyruvate ferredoxin oxidoreductase gamma subunit [EC:1.2.7.1]
cdhD, acsD; acetyl--CoA decarbonylase/synthase complex subunit delta [EC:2.1.1.245]
cooF; anaerobic carbon--monoxide dehydrogenase iron sulfur subunit
cdhE, acsC; acetyl--CoA decarbonylase/synthase complex subunit gamma [EC:2.1.1.245]
cooS, acsA; anaerobic carbon--monoxide dehydrogenase catalytic subunit [EC:1.2.7.4]
coxS; aerobic carbon--monoxide dehydrogenase small subunit [EC:1.2.5.3]
coxM, cutM; aerobic carbon--monoxide dehydrogenase medium subunit [EC:1.2.5.3]
coxL, cutL; aerobic carbon--monoxide dehydrogenase large subunit [EC:1.2.5.3]
hyaB, hybC; hydrogenase large subunit [EC:1.12.99.6]
hyaA, hybO; hydrogenase small subunit [EC:1.12.99.6]
nfsA; nitroreductase [EC:1.-.-.-]
nfnB, nfnB; nitroreductase / dihydropteridine reductase [EC:1.-.-.- 1.5.1.34]
nemA; N--ethylmaleimide reductase [EC:1.-.-.-]
dsrA; dissimilatory sulfite reductase alpha subunit [EC:1.8.99.5]
dsrB; dissimilatory sulfite reductase beta subunit [EC:1.8.99.5]
dmpB, xyfE; catechol 2,3--dioxygenase [EC:1.13.11.2]
E3.1.1.45; carboxymethylenebutenolidase [EC:3.1.1.45]
E3.8.1.2; 2--haloacid dehalogenase [EC:3.8.1.2]
dehH; haloacetate dehalogenase [EC:3.8.1.3]
dhaA; haloalkane dehalogenase [EC:3.8.1.5]
catB; muconate cycloisomerase [EC:5.5.1.1]
catA; catechol 1,2--dioxygenase [EC:1.13.11.1]
paahH, hbd, fadB, mmgB; 3--hydroxybutyryl--CoA dehydrogenase [EC:1.1.1.157]
E1.2.1.10; acetaldehyde dehydrogenase (acetylating) [EC:1.2.1.10]
GCDH; gdhH; glutaryl--CoA dehydrogenase [EC:1.3.8.6]
dmpB, xyfE; catechol 2,3--dioxygenase [EC:1.13.11.2]
pcaG; protocatechuate 3,4--dioxygenase, alpha subunit [EC:1.13.11.3]
pcaH; protocatechuate 3,4--dioxygenase, beta subunit [EC:1.13.11.3]
pobA; p--hydroxybenzoate 3--monooxygenase [EC:1.14.13.2]
E2.3.1.9, atoB; acetyl--CoA C--acetyltransferase [EC:2.3.1.9]
fadA, fadI; acetyl--CoA acyltransferase [EC:2.3.1.16]
ytmi; uncharacterized N--acetyltransferase [EC:2.3.1.-]
pcaI; 3--oxoadipate CoA--transferase, alpha subunit [EC:2.8.3.6]
pcaJ; 3--oxoadipate CoA--transferase, beta subunit [EC:2.8.3.6]
pcaD; 3--oxoadipate enol--lactonase [EC:3.1.1.24]
E3.1.2.23; 4--hydroxybenzoyl--CoA thioesterase [EC:3.1.2.23]
pcaC; 4--carboxymuconolactone decarboxylase [EC:4.1.1.44]
gcdA; glutacetyl--CoA decarboxylase [EC:4.1.1.70]
mhpE; 4--hydroxy 2--oxovalerate aldolase [EC:4.1.3.39]
paafF, echA; enoyl--CoA hydratase [EC:4.2.1.17]
praC, xyfH; 4--oxalocrotonate tautomerase [EC:5.3.2.6]
hpafF, hpcD; 5--carboxymethyl--2--hydroxymuconate isomerase [EC:5.3.3.10]
catB; muconate cycloisomerase [EC:5.5.1.1]
pcaB; 3--carboxy--cis--muconate cycloisomerase [EC:5.5.1.2]
mhpD; 2--keto--4--pentenoate hydratase [EC:4.2.1.80]
catA; catechol 1,2--dioxygenase [EC:1.13.11.1]
catC; muconolactone D--isomerase [EC:5.3.3.4]
eutE; aldehyde dehydrogenase
adhE; acetaldehyde dehydrogenase / alcohol dehydrogenase [EC:1.2.1.10 1.1.1.1]
mhpF; acetaldehyde dehydrogenase [EC:1.2.1.10]
desB, galA; gallate dioxigenase [EC:1.13.11.57]
badA; benzoate--CoA ligase [EC:6.2.1.25]
benA--xyfX; benzoate/toluate 1,2--dioxygenase subunit alpha [EC:1.14.12.10 1.14.12.-]
benB--xyfY; benzoate/toluate 1,2--dioxygenase subunit beta [EC:1.14.12.10 1.14.12.-]
benD--xyfL; dihydroxycyclohexadiene carboxylate dehydrogenase [EC:1.3.1.25 1.3.1.-]
benC--xyfZ; benzoate/toluate 1,2--dioxygenase reductase component [EC:1.18.1.-]
badH; 2--hydroxycyclohexanecarboxyl--CoA dehydrogenase [EC:1.1.1.-]
pcaF; 3--oxoadipyl--CoA thiolase [EC:2.3.1.174]
dmpC, xyfG, praB; aminomuconate--semialdehyde/2--hydroxymuconate--6--semialdehyde dehydrogenase [EC:1.2.1.32 1.2.1.85]
ligK, galC; 4--hydroxy--4--methyl--2--oxoglutarate aldolase [EC:4.1.3.17]
ligC; 2--hydroxy--4--carboxymuconate semialdehyde hemiacetal dehydrogenase [EC:1.1.1.312]
ligJ; 4--oxalimesaconate hydratase [EC:4.2.1.83]
lgt; 2--pyrone--4,6--dicarboxylate lactonase [EC:3.1.1.57]
DHBD; 2,3--dihydroxybenzoate decarboxylase [EC:4.1.1.46]
fadA, fadI; acetyl--CoA acyltransferase [EC:2.3.1.16]
ytmi; uncharacterized N--acetyltransferase [EC:2.3.1.-]
mhpE; 4--hydroxy 2--oxovalerate aldolase [EC:4.1.3.39]
mhpD; 2--keto--4--pentenoate hydratase [EC:4.2.1.80]
nahAB, nagAB, ndoA, nbzAB, dntAB; naphthalene 1,2--dioxygenase ferredoxin component
nahAa, nagAa, ndoR, nbzAa, dntAa; naphthalene 1,2--dioxygenase ferredoxin reductase component [EC:1.18.1.7]
E1.1.1.90; aryl--alcohol dehydrogenase [EC:1.1.1.90]
E3.1.1.17, gnl, RGN; gluconolactonase [EC:3.1.1.17]
paafF, echA; enoyl--CoA hydratase [EC:4.2.1.17]
fadJ; 3--hydroxyacyl--CoA dehydrogenase / enoyl--CoA hydratase / 3--hydroxybutyryl--CoA epimerase [EC:1.1.1.35 4.2.1.17 5.1.2.3]
fadB; 3--hydroxyacyl--CoA dehydrogenase / enoyl--CoA hydratase / 3--hydroxybutyryl--CoA epimerase / enoyl--CoA isomerase [EC:1.1.1.35 4.2.1.17 5.1.2.3 5.1.2.3.1]
chnB; cyclohexanone monooxygenase [EC:1.14.13.22]
DCAA; acyl--CoA dehydrogenase [EC:1.3.99.-]
aldH; NADP--dependent aldehyde dehydrogenase [EC:1.2.1.4]