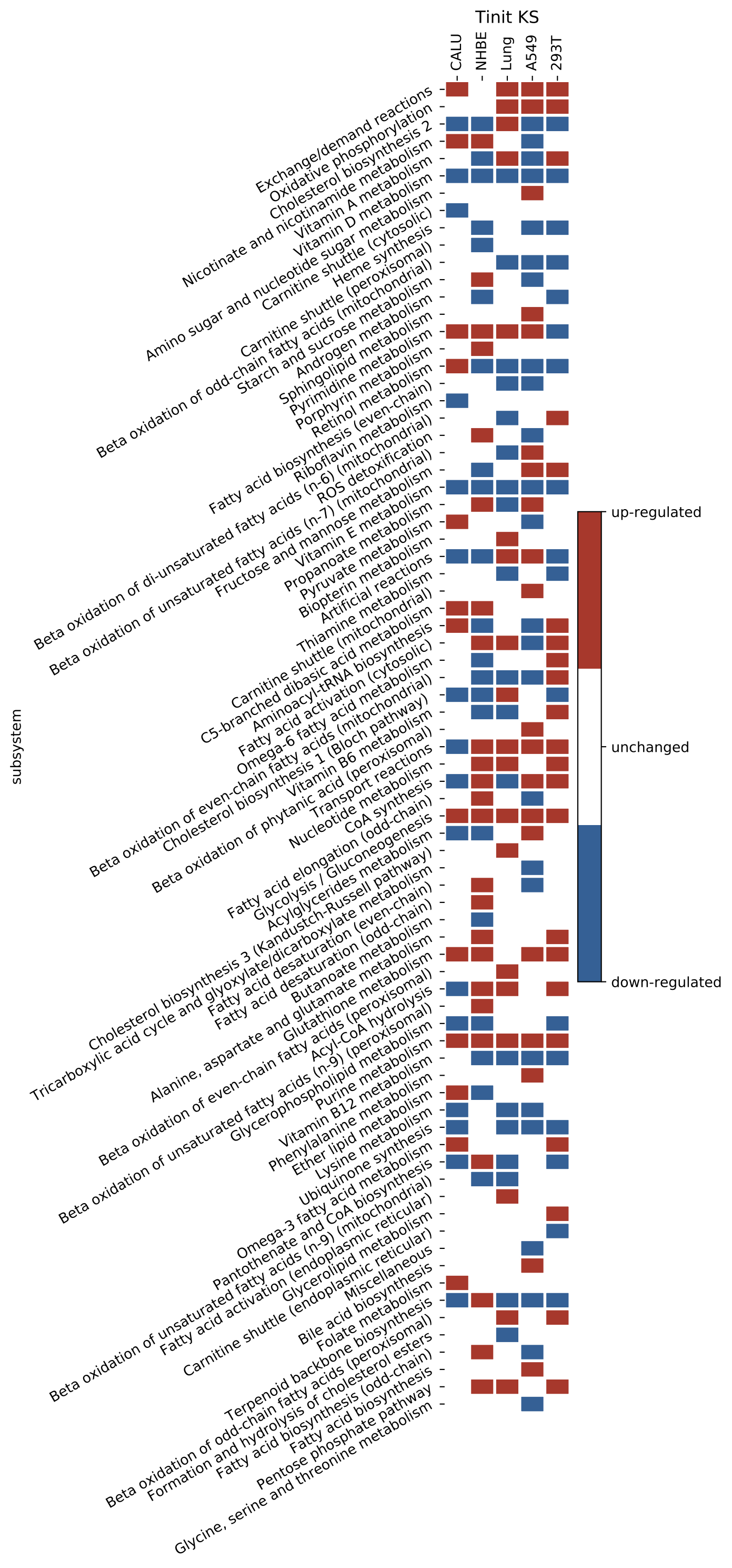
Tinit KS
CALU
NHBE
Lung
A549
293T
subsystem
Exchange/demand reactions
Oxidative phosphorylation
Cholesterol biosynthesis 2
Nicotinate and nicotinamide metabolism
Vitamin A metabolism
Vitamin D metabolism
Amino sugar and nucleotide sugar metabolism
Carnitine shuttle (cytosolic)
Heme synthesis
Carnitine shuttle (peroxisomal)
Beta oxidation of odd-chain fatty acids (mitochondrial)
Starch and sucrose metabolism
Androgen metabolism
Sphingolipid metabolism
Pyrimidine metabolism
Porphyrin metabolism
Retinol metabolism
Fatty acid biosynthesis (even-chain)
Riboflavin metabolism
Beta oxidation of di-unsaturated fatty acids (n-6) (mitochondrial)
ROS detoxification
Beta oxidation of unsaturated fatty acids (n-7) (mitochondrial)
Fructose and mannose metabolism
Vitamin E metabolism
Propanoate metabolism
Pyruvate metabolism
Biopterin metabolism
Artificial reactions
Thiamine metabolism
Carnitine shuttle (mitochondrial)
C5-branched dibasic acid metabolism
Aminoacyl-tRNA biosynthesis
Fatty acid activation (cytosolic)
Omega-6 fatty acid metabolism
Beta oxidation of even-chain fatty acids (mitochondrial)
Cholesterol biosynthesis 1 (Bloch pathway)
Vitamin B6 metabolism
Beta oxidation of phytanic acid (peroxisomal)
Transport reactions
Nucleotide metabolism
CoA synthesis
Fatty acid elongation (odd-chain)
Glycolysis / Gluconeogenesis
Acylglycerides metabolism
Cholesterol biosynthesis 3 (Kandustch-Russell pathway)
Tricarboxylic acid cycle and glyoxylate/dicarboxylate metabolism
Fatty acid desaturation (even-chain)
Fatty acid desaturation (odd-chain)
Butanoate metabolism
Alanine, aspartate and glutamate metabolism
Glutathione metabolism
Beta oxidation of even-chain fatty acids (peroxisomal)
Acyl-CoA hydrolysis
Beta oxidation of unsaturated fatty acids (n-9) (peroxisomal)
Glycerophospholipid metabolism
Purine metabolism
Vitamin B12 metabolism
Phenylalanine metabolism
Ether lipid metabolism
Lysine metabolism
Ubiquinone synthesis
Omega-3 fatty acid metabolism
Pantothenate and CoA biosynthesis
Beta oxidation of unsaturated fatty acids (n-9) (mitochondrial)
Fatty acid activation (endoplasmic reticular)
Glycerolipid metabolism
Carnitine shuttle (endoplasmic reticular)
Miscellaneous
Bile acid biosynthesis
Folate metabolism
Terpenoid backbone biosynthesis
Beta oxidation of odd-chain fatty acids (peroxisomal)
Formation and hydrolysis of cholesterol esters
Fatty acid biosynthesis (odd-chain)
Fatty acid biosynthesis
Pentose phosphate pathway
Glycine, serine and threonine metabolism
up-regulated
unchanged
down-regulated