L-isoleucine synth. L-valine synth. adenine and adenosine salvage UDP-N-acetyl-D-glucosamine synth. glycolysis L–glutamine synth. UDP-N-acetyl-D-galactosamine synth. mixed acid fermentation pyrimidine dNMPs de novo synth. pyrimidine ribonucleosides salvage palmitoleate synth. -dodec-5-enoate) cis-vaccenate synth. petroselinate synth. fatty acid synth. stearate synth. palmitate synth. dodecenoate synth. 8-amino-7-oxononanoate synth. gondoate synth. mycolate synth. oleate synth. streptorubin B synth. fatty acid synth. init. fatty acid elongation -- saturated iso-branched-chain fatty acid synth. anteiso-branched-chain fatty acid synth. L-arabinose degr. D-galactose degr. L-histidine synth. pyrimidine dNMPs synth. from CTP NADH to cytochrome bd oxidase e- transf. UTP and CTP dephos. Mucus glycans degr.