PYRIMIDINE METABOLISM PRPP Pentose phosphate pathway Dihydro-orotate UDP-glucose(extracellular) K17828... Orotidine-5P Orotate N-Carbamoyl Pseudouridine-2',3'-Cyclic UMP L-aspartate 5'-phosphate <u>Пр</u>ррр Ш 3'-UMP UTP K01518 C(2355 (extracellular) ⁰⁶Pseudouridine Carbamoyl-P ₩UMP UTP β-Alanine metabolism **▲** UDP 3-Ureido-propionate Uracil Uridine β-Alanine Dihydrouracil 3.6.1.39 Arginine biosynthesis ்**ூ**L-Glutamine Barbiturate Malonate TT5 1.1799.4 FO (extracellular) ₩ RNA 3-Oxo-3-ureidopropanoate с**ф**≋Urea **▲**Cytosine Cytidine 4 CTP Ureidoacrylate 3.2.2.10 Alanine, aspartate and glutamate metabolism Thioredoxin Thioredoxin _**__**C@42 3'-CMP 💇 Carbamate hm5dCTP Malonatesemialdehyde K19796 K19797 K09018... **15.** <u>____</u>_____ hm5dCMP Thioredoxin K18942 Thioredoxin 3-Hydroxy-(Z)-3-Peroxy-aminoacrylate Thioredoxin disulfide (Z)-3-Ureidoacrylate-Aminoacrylate dCMP propionate peracid Deoxycytidine C20031 K00527 dCTP| dCDP hm5C in DNA K08722 C00343 K09887 Thioredoxin disulfide K01520 Deoxyuridine. dUDP C01346 3.6.1.39 dUMP °©©°Urea dUTP Thioredoxin disulfide 5-Methylbarbiturate K08722 1.1799.4 C(2)76 3-Oxo-3-ureido-isobutyrate Methylmalonate 5-Methylcytosine L___COO42 Thioredoxing K08722 K08728 Valine, leucine and isoleucine metabolism Thymidine (R)-3-Ureido-isobutyrate (R)-3-Amino-isobutyrate dTMP Thymine (R)-Dihydrothymine 3.6.1.39 2-Deoxy-D-nbose-1P 00240 3/25/16 (c) Kanehisa Laboratories