## PYRIMIDINE METABOLISM PRPP Pentose phosphate pathway **6000**19 Dihydro-⊥o∘UDP-glucose (extracellular) K17828... 3.6.1.8 Orotidine-5P orofate Opotate N-Carbamoyl P9301\_05951 K00226 Pseudouridine-5'-phosphate 2',3'-Cyclic UMP L-aspartate 3.6.1.8 **├─⊙** UppppU pyrD 3'-UMF UTP K01518 K01511... O Pseudouridine (extracellular) P9301\_13921 K01119... K01510... Carbamoyl-P ♥ UTP K13800... K17722... rpoZ... β-Alanine metabolism K01240 **▲** UDP Uracil 3-Ureidoβ-Alanine Uridine Dihydrouracil K01510... carA.. propionate upp... 3.6.1.39 dcd Arginine Barbiturate Malonate Glutamine K01513... biosynthesis | 1.1799.4|**--▶°⊙≪** pyrG (extracellular) 3-Oxo-3-ureido-K01513... propanoate **Ò**°Urea 3.6.1.8 codA K01510. Ureidoacrylate ₩ RNA K13800.. Alanine, aspartate and ytosine K09020 glutamate metabolism rpoZ... cmk K10213 CTP Cytidine Carbamate Malonate-3.2.2.10 semialdehyde Thioredoxin Thioredoxin Thioredoxin K01119... K01119.. (Z)-3-Peroxy-aminoacrylate 3-Hydroxy-(Z)-3-Ureidoacrylate-Aminoacrylate 3'-CMP 2',3'-Cyclic CMP propionate hm5dCDP hm5dCTP peracid K19797 C00343 P9301\_02311 K00527 Thioredoxin Thioredoxin disulfide hm5dCMP K18942 <u>disulfi</u>de K13800... dCMP CON-4 Deoxycytidine Thioredoxin cmk dCTP Ò dCDP disulfide hm5C in DNA K16904 surE K16904 K08722 K09887 K01489 K00756 dcd K01493 K01520 dnaN... K00757 Deoxyuridine K03783... K00857 K00758 3.6.1.39 dUMP O Urea surE Thioredoxin disulfide 5-Methylbarbiturate K08722 | 1.1799.4|**-- ▶°©\*4-**K00560.. thy1 9301\_02311 nrdJ C(2376 3-Oxo-3-ureido-isobutyrate Methylmalonate 5-Methylcytosine -**-**CO42 surE Thioredoxin@UDP K08722 K08728 Valine, leucine and dnaN... K00857 DNA°**©™** isoleucine metabolism K01510.. K00758 K00207 Thymidine **♦** dTMP (R)-3-Amino-isobutyrate (R)-Dihydro-(R)-3-Ureido-Thymine K01510.. isobutyrate thymine 3.6.1.39 2-Deoxy-D-nbose-1P K01513... 00240 12/6/16 (c) Kanehisa Laboratories