## PYRIMIDINE METABOLISM PRPP Pentose phosphate pathway **6001**19 Dihydro-UDP-glucose(extracellular) K17828... Orotidine-5P orotate Orotate N-Carbamoyl K13421... K11540... **\_\_\_\_\_**CO374\_ C00295 K13421.. Pseudouridine-2',3'-Cyclic UMP L-aspartate C00075 UppppDU 5'-phosphate 3'-UMP K01718 K00254 UTP (extracellular) K01518 K01511... <u>C0</u>2365 COO Pseudouridine K11540... K16329... K00962 Carbamoyl-P UMP \_ IV UTP K17722.. K03040... K13800... β-Alanine metabolism K00940... K01464 K09903 K00207 **↓**UDP Uridine 👉 Uracil 3-Ureidoβ-Alanine Dihydrouracil K11540... propionate K00761.. 3.6.1.39 K01494 Arginine biosynthesis Barbiturate, °**∲**L-Glutamine K01485 K01937 <sup>c</sup>©°°CTP 3.5.2.1 **►►⊙** 3.5.1.95 1.1799.4 **₽**03 **▶••**©® Malonate (extracellular) 3-Oxo-3-ureido-K13800... K00756 propanoate ்**ு** Urea K03040... K00940... K10213 ▲Cytosine Cytidine 4 CTP 2',3'-Cyclic CMP K01111 Ureidoacrylate 3.2.2.10 Alanine, aspartate and glutamate metabolism K09020 Thioredoxin Thioredoxin 2'-Deoxy-5-hydroxy-methylcytidine-3'-CMP <u>,-</u>₽€°©42 5-Hydroxymethyl-Malonate-semialdehyde [ °**Ç**°Carbamate 5'-triphosphate deoxycytidylate K00384 K00384 K00524... K00527 K16066 2.1.2.8 2'-Deoxy-5-hydroxy-methylcytidine-5'-diphosphate K09018... Thioredoxin K09019 (Z)-3-Ureidoacrylate-peracid 3-Hydroxy-Thioredoxin (Z)-3-Peroxy-Thioredoxin Aminoacrylate \_\_\_CO342\_ dCMP disulfide disulfide àminoacrylate propionaté K16904 K00893.. Deoxycytidine K13800... K00384 dCTP dCDP K16904 K01493 COOKS K09887 K00756 Thioredoxin disulfide K01494 K01520 K02335.. dUDP K00940.. 3.6.1.39 dUMP dUTP Deoxyuridine 5-Methylbarbiturate Thioredoxin disulfide 1.1799.4 K00384 K00524.. Methylmalonate K01485 \_\_\_C00342 5-Methylcytosine Thioredoxin UDP 3-Ureidoisobutyrate K17722.. K08728 Valine, leucine and K00940 DNA°**©°⁴** isoleucine metabolism K00207 3-Amino-Thymidine Dihydro-thymine dTMP Thymine isobutanoate 3.6.1.39 2-Deoxy-D-nbose-1P 00240 7/14/15 (c) Kanehisa Laboratories