## PYRIMIDINE METABOLISM PRPP Pentose phosphate pathway **6001**19 Dihydro-UDP-glucose(extracellular) K04765 K17828... Orotidine-5P orotate Orotate N-Carbamoyl K13421... K11540... \_\_\_\_C033744\_ K00226 C00295 K13421.. Pseudouridine-2',3'-Cyclic UMP L-aspartate K04765 C00075 5'-phosphate UpppppU 3'-UMP K01718 K00254 UTP (extracellular) Pseudouridine K01518 K01511... K16328... C02355 K11540... K16329... K00962 K01510... Carbamoyl-P UMP K17722.. K03040... UTP K13800.. K00757 K00876 β-Alanine metabolism K00940... K01464 K09903 K01240 K01081. K00207 **↓**UDP 👉 Uracil Uridine 3-Ureidoβ-Alanine Dihydrouracil K01510.. K11540... propionate K00761.. 3.6.1.39 K01494 K01519 Arginine biosynthesis Barbiturate, °**∲**L-Glutamine K01485 K01489 ⊢c**©**3CT<u>T</u> K04765 K01937 3.5.2.1 ► 🗢 3.5.1.95 1.1799.4 **₽**03 **▶••**©® Malonate (extracellular) 3-Oxo-3-ureido-K01510... K13800... K00756 K00876 propanoate ்**ு** Urea K03040... K00940... K10213 ▲Cytosine Cytidine 4 CTP 2',3'-Cyclic CMP K01119... Ureidoacrylate 3.2.2.10 Alanine, aspartate and glutamate metabolism K09020 K01119... Thioredoxin Thioredoxin 2'-Deoxy-5-hydroxy-methylcytidine-<u>,-</u>₽€°©42 3'-CMP 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 3-Hydroxy-Thioredoxin Thioredoxin\_ (Z)-3-Ureidoacrylate-(Z)-3-Peroxy-Aminoacrylate **L**C0342 dCMP disulfide disulfide àminoacrylate propionaté peracid K16904 K00893.. eoxycytidine K01081.. K13800... K00384 dCTP dCDP K16904 K01493 K01489 COOKS K09887 K00756 Thioredoxin disulfide K01494 K01519 K00757 K01520 K02335.. dUDP K03783... K00940.. K00857 K00943 K01081.. K00758 3.6.1.39 dUTP Deoxyuridine 5-Methylbarbiturate Thioredoxin disulfide 1.1799.4 K00560.. K03465 K00384 K00524.. Methylmalonate K01485 \_\_\_C00342 5-Methylcytosine Thioredoxin | UDP K01081.. 3-Ureidoisobutyrate K17722.. K08728 Valine, leucine and K00940 K00857 DNA°© isoleucine metabolism K00758 K00207 3-Amino-Thymidine Dihydro-thymine Thymine dTMP isobutanoate K01510.. C0072 3.6.1.39 2-Deoxy-D-nbose-1P 00240 7/14/15 (c) Kanehisa Laboratories