PYRIMIDINE METABOLISM PRPP Pentose phosphate pathway **6000**19 Dihydro-⊥o∘UDP-glucose (extracellular) K17828... 3.6.1.8 Orotidine-5P orofate N-Carbamoyl EW15_1812 EW15_0666 K00226 Pseudouridine-5'-phosphate 2',3'-Cyclic UMP L-aspartate 3.6.1.8 UppppU EW15_0288 3'-UMF UTP K01518 K01511... O Pseudouridine (extracellular) EW15_0325 EW15_1721 K01119... K01510... Carbamoyl-P UMP ♥ UTP K13800... K17722... EW15_1882... EW15_1087 EW15_0063 β-Alanine metabolism EW15_0620 K01240 **▲** UDP 3-Ureidoβ-Alanine Uridine Dihydrouracil K01510... propionate EW15_0909. EW15_0864.. 3.6.1.39 EW15_0337 Arginine Barbiturate Malonate -Glutamine K01513... biosynthesis | 1.1799.4|**--▶°⊙≪** EW15_2248 (extracellular) 3-Oxo-3-ureido-K01513... propanoate EW15_1782 **Ò**°Urea K01510. 3.6.1.8 Ureidoacrylate ₩ RNA K01510... K13800.. Alanine, aspartate and ytosine EW15_1087 K09020 EW15_1882... glutamate metabolism EW15_1747 EW15_0063 EW15_2111 K10213 **▲**|CDP CTP Cytidine • Carbamate Malonate-EW15_1721 3.2.2.10 semialdehyde Thioredoxin Thioredoxin K01119... K01119.. Thioredoxin 3-Hydroxy-(Z)-3-Peroxy-(Z)-3-Ureidoacrylate-Aminoacrylate **_____**CO342 3'-CMP 2',3'-Cyclic CMP EW15_0301.. àminoacrylate propionate hm5dCDP hm5dCTP peracid C00343 EW15_0301. K00527 Thioredoxin Thioredoxin disulfide hm5dCMP K18942 <u>disulfi</u>de K13800... dCMP CON-4 EW15_0063 K00893... **P**Deoxycytidine Thioredoxin EW15_2111 dCTP Ò dCDP disulfide hm5C in DNA K16904 EW15_1747 K16904 K08722 K01489 K09887 K00756 EW15_0337 K01493 EW15_0002... K01520 K00757 Deoxyuridine 🛶 K03783... K00857 EW15_0217 K00758 3.6.1.39 dUMP ©°Urea dUTP EW15_1747 Thioredoxin disulfide 5-Methylbarbiturate K08722 | 1.1799.4|**--▶°0*4**-K00560.. EW15_0301.. EW15_0762 EW15_0336 C(2)76 EW15_1782 3-Oxo-3-ureido-isobutyrate Methylmalonate 5-Methylcytosine EW15_1747 Thioredoxin@UDP K08722 K08728 Valine, leucine and EW15_0063 EW15_0002.. K00857 DNACONisoleucine 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