

**Table S2. Genetic background of the *E. coli* strains used.**

BL21 (DE3)	fhuA2 [lon] ompT gal ( $\lambda$ DE3) [dcm] $\Delta$ hsdS  $\lambda$ DE3 = $\lambda$ sBamHIo $\Delta$ EcoRI-B int::(lacI::PlacUV5::T7 gene1) i21 $\Delta$ nin5
BW25113	$\Delta$ (araD-araB)567, $\Delta$ lacZ4787(::rrnB-3), lambda-, rph-1,  $\Delta$ (rhaDrhaB)568, hsdR514
Top10 (Trans10)	F- mcrA $\Delta$ (mrr-hsdRMS-mcrBC) $\phi$ 80 lacZ $\Delta$ M15 $\Delta$ lacX74  recA1 ara $\Delta$ 139 $\Delta$ (ara-leu)7697 galU galK rpsL (StrR)endA1  nupG
DH5 $\alpha$ (Trans5 $\alpha$ )	F- $\phi$ 80 lac Z $\Delta$ M15 $\Delta$ (lacZYA-arg F) U169 endA1 recA1  hsdR17(rk-,mk+) supE44 $\lambda$ - thi -1 gyrA96 relA1 phoA
PKUW13*	Wild-type (Km <sup>r</sup> )
PKUW151(TCE-Glu)*	attB::sp <sup>r</sup> -lacI <sup>q</sup> -tetR $\Delta$ gltIp::P <sub>Lac-O1</sub> , $\Delta$ gltSp::P <sub>Lac-</sub>  O1,gltPp::P <sub>Lac-O1</sub> (Km <sup>r</sup> )

\*These strains are isogenic with respect to the prototrophic K-12 strain NCM3722 <sup>1,2</sup>.

- 1 Soupene, E. *et al.* Physiological studies of Escherichia coli strain MG1655: growth defects and apparent cross-regulation of gene expression. *J Bacteriol* **185**, 5611-5626 (2003).
- 2 Wang, J., Yan, D., Dixon, R. & Wang, Y. P. Deciphering the Principles of Bacterial Nitrogen Dietary Preferences: a Strategy for Nutrient Containment. *MBio* **7** (2016).