

TABLE S1 File containing the cell growth in MOPS media and properties of first transmembrane domains. (A) Growth rates of cells under different nutrient conditions. Growth rates were calculated from the corresponding growth curves that are shown in Fig. S3 and Fig. S4. All values are expressed as the mean \pm SEM. Data shown are related to Fig. 2E and F and Fig. 4A to D. (B) First transmembrane domain (TMD1) properties analysis. Data shown are related to Fig. 5E.

TABLE S1A

Strain	Nutrient condition	Growth rate (h ⁻¹)	T _{int}	T _{delay}
MG1655 Δ lacZ	Glucose + cAA 0.2% glucose + 0.2% casamino acids	1.10 \pm 0.04	9.7 \pm 0.2	–
MG1655 Δ lacZ	Sorbitol + NH ₄ Cl 0.1% sorbitol and 10 mM NH ₄ Cl	0.19 \pm 0.03	10.9 \pm 0.3	–
MY1506 Δ lacZ Δ cat	Glucose + cAA 0.2% glucose + 0.2% casamino acids	0.20 \pm 0.02	34.2 \pm 0.4	23.3 \pm 0.4 ^a
MY1512 Δ lacZ Δ cat	Glucose + cAA 0.2% glucose + 0.2% casamino acids	0.19 \pm 0.02	39.8 \pm 0.4	28.9 \pm 0.4 ^a
SRP ⁺	Arabinose + fructose + cAA 0.2% arabinose + 0.2% fructose + 0.4% casamino acids	1.08 \pm 0.11	9.9 \pm 0.1	–
SRP ⁻	Fructose + cAA 0.2% fructose + 0.15% casamino acids	0.22 \pm 0.02	11.1 \pm 0.4	–
SRP ⁻ (25°C)	Fructose + cAA 0.2% fructose + 0.15% casamino acids	0.18 \pm 0.01	12.1 \pm 0.1	1.0 \pm 0.4 ^b
SRP ⁻ (+Ksg)	Fructose + cAA 0.2% fructose + 0.15% casamino acids	0.12 \pm 0.01	17.4 \pm 0.3	6.3 \pm 0.4 ^b

^aThe time delay in initiation relative to MG1655 Δ lacZ cell grown at \sim 0.2 h⁻¹.

^bThe time delay in initiation relative to SRP⁻ cell grown at 37°C.

TABLE S1B

Category	Presence of category in TMD1 sequence in %	
	Targeted	Untargeted
average Gly content	6	7
average Ser content	4	3
average ALA content	12	10
average Thr content	6	5
average Val content	11	11
average Asp content	0	0
average Asn content	0	1
average Leu content	23	21
average Ile content	11	12
average Glu content	0	1
average Gln content	1	1
average Tyr content	3	2
average Phe content	7	10
average His content	1	1
average Pro content	2	2
average Met content	3	4
average Trp content	4	2
average Lys content	1	2
average Cys content	1	1
average Arg content	3	2
average polar	15	14
average charged	6	6
average Aromatic	14	15
average Aliphatics	49	48
average Hydrophobics	80	80
average Leu:Ala ratio	2	2