

**Supplementary Table S3: Protein constructs created and presented in this work.** All constructs were cloned into the expression vector pET302.

ID	Name	Expression strain <sup>1</sup>	Origin <sup>2</sup>	Application <sup>3</sup>
eGFP	H_eGFP	A	1	FM
eGFP_SERSQ	H_eGFP_L_SERSQYIPSTRT	A	1	FM
eGFP_QTVNL	H_eGFP_L_QTVNLLSDVRRS	A	1	FM
eGFP_DGSPL	H_eGFP_L_DGSPLPQKIHPS	A	1	FM
eGFP_YNTGH	H_eGFP_L_YNTGHTPVKLHT	A	1	FM
eGFP_HGDWT	H_eGFP_L_HGDWTKRWSFLA	A	1	FM
eGFP_GYPPG	H_eGFP_L_GYPPGAGHANTL	A	1	FM
eGFP_TPLFT	H_eGFP_L_TPLFTQEATGAN	A	1	FM
eGFP_MTPTA	H_eGFP_L_MTPTANTCVRCN	A	1	FM
eGFP_LSWSQ	H_eGFP_L_LSWSQTQGVSSST	A	1	FM
eGFP_SIAED	H_eGFP_L_SIAEDQTISTPK	A	1	FM
eGFP_TAT	H_eGFP_L_TAT	A	1	FM
LST	LST	A/B	2	AA/BD/ES
LST_SERSQ	LST_SERSQYIPSTRT	A/B	1	AA/BD
LST_QTVNL	LST_QTVNLLSDVRRS	A	1	AA
LST_DGSPL	LST_DGSPLPQKIHPS	A	1	AA
LST_YNTGH	LST_YNTGHTPVKLHT	A	1	AA
LST_HGDWT	LST_HGDWTKRWSFLA	A/B	1	AA/BD/ES
LST_GYPPG	LST_GYPPGAGHANTL	A	1	AA
LST_TPLFT	LST_TPLFTQEATGAN	A	1	AA
LST_MTPTA	LST_MTPTANTCVRCN	A/B	1	AA/BD
LST_LSWSQ	LST_LSWSQTQGVSSST	A	1	AA
LST_SIAED	LST_SIAEDQTISTPK	A	1	AA
LST_SDSSD	LST_SDSSD	A/B	1	AA/BD/ES
LST_DSS6	LST_DSS6	A	1	AA
LST_TAT	LST_TAT	A/B	2	AA
M23	M23LST(L)_SH3b2638	A/B	2	AA/ES
M23_HGDWT	M23LST(L)_SH3b2638_HGDWT	B	1	AA/ES
M23_SDSSD	M23LST(L)_SH3b2638_SDSSD	B	1	AA/ES
CHAPGH15	CHAPGH15_SH3bALE1	B	2	AA/ES
CHAPGH15_HGDWT	CHAPGH15_SH3bALE1_HGDWT	B	1	AA/ES
CHAPGH15_SDSSD	CHAPGH15_SH3bALE1_SDSSD	B	1	AA/ES

<sup>1</sup> Expression strains: A, *E. coli* BL21-Gold(DE3); B, *E. coli* ClearColi® BL21(DE3).

<sup>2</sup> Origin of construct: 1, this study; 2, strain collection of Laboratory of Food Microbiology, ETH Zurich, Zurich.

<sup>3</sup> Application: FM, fluorescence microscopy; AA, activity assays; BD, biodistribution; ES, efficacy study.