Supplementary Materials to accompany the manuscript:

Exploiting a phage-bacterium interaction system as a molecular switch to decipher macromolecular interactions in the living cell

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SUPPLEMENTARY MATERIALS

Supplementary Table S1. Stl mutants identified with reduced DNA binding ability in the Stl switch system

Number of mutations	Stl mutants
1 mutation	Stl^{K19K}
	Stl^{E59K}
	$Stl^{G62Afs*88}$
	$Stl^{G66Afs*88}$
	Stl^{I123T}
	Stl^{Y143Y}
	Stl^{V144A}
	Stl^{R177H}
	Stl^{K214*}
	Stl^{A236T}
	Stl^{K238E}
2 mutations	$Stl^{Q6H, S76T}$
	$Stl^{G15S, K240R}$
	$Stl^{T16S, D142A}$
	$Stl^{G92D, V229M}$
	$Stl^{I134V, H256R}$
	$Stl^{K158N, I220V}$
3 mutations	$Stl^{D174V, G185G, K193K}$
4 mutations	$Stl^{I18T, Y98H, D142D, R227C}$

	Stl$^{V55M, F79L, N137D, I161T}$
5 mutations	Stl$^{Y70C, K80K, K93R, L152R, I181Lfs*188}$
6 mutations	Stl$^{M1R[a], G54V, L129P, D140E, E186V, H188H}$
	Stl$^{I17V, F38S, L72P, G92S, D95G, D108N}$
	Stl$^{N41D, E186V, R227R, D235D, K240R, K244E}$
7 mutations	Stl$^{I17T, S76S, G92A, I212T, L222P, R227R , I237I}$
8 mutations	Stl$^{S30G, Y84H, I134A, Y143H, N168S, L194L, E224E, Q257Q}$
10 mutations	Stl$^{F38L, H46Y, N48S, I58T, L65P, P86Q, Y112H, S114N, N135I, N203S}$
11 mutations	Stl$^{K31N, I53I, K63K, I67I, R74H, K93K, D155D, K193E, T197A, L245P, Y246*}$

[a]pKW08-Stl vector is containing an AU-tag before the coding sequence of Stl (Hirmondó et al. 2015, DNA Repair), therefore a protein may be translated from this mutant despite the first Met is mutated

Supplementary Table S2. Oligonucleotides used in the present study

Restriction sites are underlined

Used in	Oligo name	5'-3' sequence
Cloning of p2NIL-LacZ^{Str}-INT plasmid	SalI_str	TTTTAGTCGACCATATTCTCACCTCCTCGAAC
	HindIII_str	TGTGTAAGCTTCATATTCTCACCTCCTCGAAC
	BglII_LacZ	TGTGTAGATCTGTCGTTGTGGTCACTCG
	SalI_LacZ	TATATGTCGACCGCCCAAACATGCATGGAT
	NotI_INT_for	ATATAGCGGCCGCTGCTCCATAACATCAAACATC
	NotI_INT_rev	ATATAGCGGCCGCGAAGCTTGCATGCCTGC
Cloning of pKW08-StI$^{C\text{-}term}$	Stl-Cterm_Au_BamHI_f	ATTAGGATCCATGGATACGTATCGCTACATAAGCCCGACCCTGAACG
	Stl_HindIII_r	ATTAAAAGCTTGCGGCCGCTTAGTTGGTATC
Error prone PCR, Cloning of pKW08-StI^{A236T} and pKW08-StI^{MUT}, and pKW08-StI^{AA}	Stl_Au_BamHI_f	AATTAGGATCCATGGATACGTATCGCTACATAGCTAGCC
	Stl_HindIII_r	ATTAAAAGCTTGCGGCCGCTTAGTTGGTATC
Colony PCR for sequencing	Stl_seq_f	GGTGGTGAGTCATAGTTGC
	Stl_seq_r	CGCTTAATCCAAAGTTCAAACG
EMSA	Stl-Str	TCGTAAACATATTCTCACCTCCTCGAACAAATTATCTCACATCGAGATATTTATTTCAACATTA AATATTGCAAATTGAGATATTTTTTTCGATATGATATCATTTGGATGGAAGGAGCTGGTCAAA TGGCAGAATTACCAACACATTACGGCACAATTATTAAAACTCTTAGAAAATACATGAAATTAA CTCAAAGCAAATTGAGTGAAAGGACAGGATTTAGGATCC

Supplementary Table S3. Plasmids used in the present study

Plasmid name	Characteristics	Antibiotic Resistance	Reference
p2NIL-LacZ^{Str}-INT	reporter plasmid; LacZ; L5 integration cassette	Kan^{R}	this study
pKW08-StI	expression of StI in Mycobacterium; Tet-inducible	Hyg^{R}	Hirmondo et al., 2015
pKW08-StI$^{C\text{-}term}$	expression of C-terminal part of StI in Mycobacterium; Tet-inducible	Hyg^{R}	this study
pKW08-StI^{AA}	expression of AA mutant StI in Mycobacterium; Tet-inducible	Hyg^{R}	this study
pKW08-StI^{MUT}	expression of random mutagenized StI in Mycobacterium; Tet-inducible	Hyg^{R}	this study
pKW08-StI^{A236T}	expression of A236T mutant StI in Mycobacterium; Tet-inducible	Hyg^{R}	this study
pGex-4T-1-StI	protein expression of StI, Gluthation-S-transferase tag	CA^{R}	Nyiri et al., 2015
pGex-4T-1-StI^{A236T}	protein expression of A236T mutant StI, Gluthation-S-transferase tag	CA^{R}	this study
pSJ27-ϕdut	expression of ϕ11 dUTPase in Mycobacterium; Bxb1 integration cassette	Cm^{R}	this study