Electronic Supplementary Material (ESI) for Green Chemistry.

Table S1. Recombinant and synthetic peptides and proteins used in this study

Supplier	Name	Source	Sequence (N – C terminus)	REF
Recombinant production	eGFP	*Aequorea victoria*	MGSSHHHHHHSSGLVPRGSHMVSKGEELFTGVVPILVELDGDVNGHKFSVSGEGEGDATYGKLTLKFICTTGKLPVPWPTLVTTLTYGVQCFSRYPDHMKQHDFFKSAMPEGYVQERTIFFKDDGNYKTRAEVKFEGDTLVNRIELKGIDFKEDGNILGHKLEYNYNSHNVYIMADKQKNGIKVNFKIRHNIEDGSVQLADHYQQNTPIGDGPVLLPDNHYLSTQSALSKDPNEKRDHMVLLEFVTAAGITLGMDELYK	PMID: 7480149
Recombinant production	17x helix	synthetic	AEAAAKEAAAKEAAAKA	PMID: 1579220
Recombinant production	TEV site	*Tobacco etch virus*	ENLYFQG	PMID: 1809930
Recombinant production	LCI	*Bacillus subtilis*	AIKLVQSPNGNFAASFVLDGTKWIFKSKYYDSSKGYWVGIYEVWDRK	PMID: 1449609
Recombinant production	LFB	*Bos taurus*	FKCRRWQWRMKKLGAPSITCVRRAF	PMID: 1490908
Recombinant production	TA2	*Limulus polyphemus*	YSRCQLQGFNCVVRSYGLPTIPCCRGLTCRSYFPGSTYGRCQRY	PMID: 10473569
Recombinant production	THA	*Podius maculiventris*	GSKKPVPIIYCNRRTGKCQRM	PMID: 8577744
Biomatik (synthetic)	DS01	*Phyllomedusa oreades*	GLWSTIKQKGKEAAIAAAKAAGQAALGAL	PMID: 23029273
Biomatik (synthetic)	THA	*Podius maculiventris*	GSKKPVPIIYCNRRTGKCQRM	PMID: 8577744
Numaferm (recombinant)	DS01-THA	-	MGLWSTIKQKGKEAAIAAAKAAGQAALGALGSKKPVPIIYCNRRTGKCQRM	-

Table S2. PCR programs used in this study

Step	Temperature (°C)	Time (s)	# of cycles
Insert PCR – PLICing *(primers: F-anchor peptide and R-anchor peptide)*			
Initial denaturation	98	30	1
Denaturation	98	15	25
Annealing	55	30	25
Elongation	72	30	25
Final elongation	72	180	1
Backbone PCR – PLICing *(primers: F-pET28a and R-pET28a)*			
Initial denaturation	98	30	1
Denaturation	98	15	25
Annealing	55	30	25
Elongation	72	210	25
Final elongation	72	300	1
Two step PCR – Step 1 *(primers: F-eGFP-TAATAA and R-eGFP-TAATAA)*			
Initial denaturation	98	30	1
Denaturation	98	15	5
Annealing	60	30	5
Elongation	72	210	5
Two step PCR – Step 2			
Initial denaturation	98	30	1
Denaturation	98	15	20
Annealing	62	30	20
Elongation	72	210	20
Final elongation	72	300	1

Table S3. Primers used in this study

Primer name	Sequence 5' – 3'
F-pET28a*	ccg gct gct aac AAA GCC CGA AAG
R-pET28a*	ctt gta cag cTC GTC CAT GCC G
F-anchor peptide*	gct gta caa gGC AGA AGC AGC AG
R-anchor peptide*	gtt agc agc cgg ATC TCA GTG

*Lower case letters indicate phosphorothioated nucleotides. F, forward; R, reverse.

Table S4. Extinction coefficient and molecular weight of eGFP-anchor peptides

Peptide	Extinction coefficent (M/cm)*	Mol weight (kDa)
eGFP	23,380	31.510
eGFP-LCI	45,840	36.956
eGFP-THA	24,870	33.928

*As calculated with https://web.expasy.org/cgi-bin/protparam