

SUPPLEMENTAL MATERIAL

TABLES

Table S1. Ramachandran scores for TC-1 and TC-1 variants

Ramachandran (%)	TC-1	TC-1 G13K	all other substitutions
most favored	91.1	87.7	87.5
additional allowed	8.9	12.3	12.5
generously allowed	0	0	0
disallowed	0	0	0

Table S2. Sequences of forward (f) and reverse (r) primers used to construct TC-1 substitution variants. Restriction sites for cloning are underlined and substituted residues are shown in bold.

Primer name	sequence (5'-3')
PKPET S12K (f)	GTGTAAC <u>CATATGGCTGAACTCCGCTGCATGTGTATAAAGACAACCAAG</u> GGAATTCATCCCAAAAAC
PKPET G13K (f)	GTGTAAC <u>CATATGGCTGAACTCCGCTGCATGTGTATAAAGACAACCTCTA</u> AAATTCATCCCAAAAACATCC
PKPET I14K (f)	GTGTAAC <u>CATATGGCTGAACTCCGCTGCATGTGTATAAAGACAACCTCTG</u> GAAAGCATCCCAAAAACATCC
PKPET K17A (f)	GTGTAAC <u>CATATGGCTGAACTCCGCTGCATGTGTATAAAGACAACCTCTG</u> GAATTCATCCCGCAAACATCCAAAGTTTGG
PKPET D42K (r)	TATAGGATCCTCAAGATTCATCACCTGCCAATTTTTTCTGTACAATTTTC TTGATTCTGGGAGCATCTGGGTCCAGGCAGATTTTCCTCCCCTTCTTCA GTGTGGCTATC
PKPET D49K (r)	TATAGGATCCTCAAGATTCATCACCTGCCAATTTTTTCTGTACAATTTTC TTGATTCTGGGAGCATCTGGCTTCAGGCAGATTTTCCTC
PKPET-1 (r)	GTGTAAC <u>CATATGGCTGAACTCCGCTGCATGTGTATAAAGACAACCTCT</u>
PKPET-2 (f)	TATAGGATCCTCAAGATTCATCACCTGCCAATTTTTTCTG