

Table S1. Plasmids used in this study.

Plasmid name	Relevant characteristics ^a	Source
pET-41a(+)	Protein expression vector; Km ^r	Novagen
pET-41a(+):TEV	Protein expression vector with modified protease cleavage site; Km ^r	This study
pET-32a (+)	Protein expression vector; Ap ^r	Novagen
pET-32a (+):TEV	Protein expression vector with modified protease cleavage site; Ap ^r	This study
pBirACm	pACYC184 with inducible biotin ligase; Cm ^r	Avidity
pET-41a::TEV::speC _{WT} ::biotin	speC inserted into <i>NcoI</i> and <i>Bam</i> HI of pET-41a with a C-terminal biotin tag; Km ^r	This study
pET-41a::TEV::speC _{Y15A}	speC _{Y15A} inserted into <i>NcoI</i> and <i>Bam</i> HI sites of pET-41a; Km ^r	[34]
pET-41a::TEV::speC _{D203A}	speC _{D203A} inserted into <i>NcoI</i> and <i>Bam</i> HI sites of pET-41a; Km ^r	[35]
pET-41a::TEV::speC _{Y15A/D203A}	speC _{Y15A/D203A} inserted into <i>NcoI</i> and <i>Bam</i> HI sites of pET-41a; Km ^r	This study
pUC57::scFv5T4::biotin	Codon optimized scFv5T4 sequence with <i>NcoI</i> and <i>Hind</i> III sites; C-terminal biotin tag; Ap ^r	GenScript
pET-32a::scFv5T4::mRFP1	scFv5T4 from pUC57::scFv5T4 inserted into <i>NcoI</i> and <i>Hind</i> III sites of pET-32a; mRFP1 inserted into <i>Eco</i> RI and <i>Hind</i> III sites replacing biotin tag of scFv5T4; Ap ^r	This study
pET-32a::TEV::scFv5T4::biotin tag	scFv5T4 from pUC57::scFv5T4 inserted into <i>NcoI</i> and <i>Hind</i> III sites of pET-32a; Ap ^r	This study
pET-32a::TEV::scFv5T4::speC _{D203A} ::biotin	scFv5T4 from pUC57::scFv5T4 inserted into <i>NcoI</i> and <i>Hind</i> III sites of pET-32a; translationally fused with speC _{D203A} with an engineered gly-gly-pro (GGP) linker; C-terminal biotin tag; Ap ^r	This study
pET-32a::TEV::scFv5T4::speC _{Y15A/D203A} ::biotin	scFv5T4 from pUC57::scFv5T4 inserted into <i>NcoI</i> and <i>Hind</i> III sites of pET-32a; translationally fused with speC _{Y15A/D203A} with an engineered gly-gly-pro (GGP) linker; C-terminal biotin tag; Ap ^r	This study
pCMV6-XL5	Mammalian expression vector; Ap ^r	Origene
pCMV6-XL5::egfp	egfp from pEGFP-N1 inserted into <i>SacI</i> and <i>XbaI</i> sites of pCMV6-XL5; Ap ^r	This study
pCMV6-XL5::5t4	5T4 inserted into <i>Eco</i> RI and <i>SalI</i> sites of pCMV6-XL5; Ap ^r	Origene
pEGFP-N1	Mammalian expression vector with N-terminal EGFP tag; Km ^r	Clontech
pEGFP-N1::5t4	5t4 from pCMV6-XL5::5t4 inserted into <i>Eco</i> RI and <i>Bam</i> HI sites of pEGFP-N1; Km ^r	This study

^a Km^r, Kanamycin resistance; Ap^r, Ampicillin resistance; Cm^r, Chloramphenicol resistance