## **SUPPLEMENTARY TABLE**

**Supplementary Table S1. Computed protein characteristics of the T cell-engaging bispecific scFv molecules and triplebodies.** Protein parameters calculated from the primary sequences of the engineered T cell-engaging BiTEs and triplebodies with the ProtParam (http://web.expasy.org/protparam/) and PeptideCutter (http://web.expasy.org/peptide cutter/) tools[41].

Protein	Length [aa]	MW [kDa]	ε [M <sup>-1</sup> cm <sup>-1</sup> ]	computed pI	Construct	Relevant Proteinases
19-3	572	60.747	117,620	8.52	target cell scFv effector cell scFv  CCMV Igk Strep huCD19 V <sub>L</sub> huCD19 V <sub>H</sub> muCD3 V <sub>H</sub> muCD3 V <sub>L</sub> (c-myc) (6xHis)	Chymotrypsin, Clostripain, Pepsin, Proline endopeptidase (4 sites), Trypsin
19-3-19	854	89.94	168,180	8.53	target cell scFv effector cell scFv target cell scFv  CMV lgk Strep huCD19V <sub>L</sub> huCD19V <sub>H</sub> muCD3V <sub>H</sub> huCD19V <sub>L</sub> huCD19V <sub>H</sub> cmy 6sHs  L L L	Chymotrypsin, Clostripain, Pepsin, <i>Proline</i> <i>endopeptidase</i> (5 sites), Trypsin
Her2-3	563	59.503	117,160	8.66	target cell scFv effector cell scFv  (CMV lgk Strep Her2(4D5) V <sub>L</sub> Her2(4D5) V <sub>L</sub> muCD3 V <sub>L</sub> muCD3 V <sub>L</sub> -c-myc 6xHis	Chymotrypsin, Clostripain, Pepsin, <i>Proline</i> <i>endopeptidase</i> (4 sites), Trypsin
Her2-3- Her2	834	87.249	167,260	8.71	target cell scFv effector cell scFv target cell scFv  CMV lgk Strep Her2(4D5) V <sub>1</sub> Her2(4D5) V <sub>1</sub> muCD3 V <sub>1</sub> Her2(4D5) V <sub>2</sub> Her2(4D5) V <sub>4</sub> emyy (xHis)  L L L	Chymotrypsin, Clostripain, Pepsin, <i>Proline</i> endopeptidase (5 sites), Trypsin