

Supplementary Information Dataset 2: Sequences of constructs used for cell-free synthesis of scFv proteins. Key sequence elements are indicated by color-coded highlighting. The scFv numbers correspond to the numbers in Figure 3.

T7 promotor First ATG VH-VL Linker Myc sequence

scFv #1

GCGAATTAAATACGACTCACTATAGGGCTTAAGTAAAGGAGGAAAAAATATGA
GTAACAAAAAACAACAGCAGGTGGTCTCGAGGGTGGTGGTTCTGAGGTAG
AGCTGGTGGAGTCTGGGGGCGGCTTAGTGCAGCCTGGAAGGTCCATGAACT
CTCCTGTGCAGCCTCAGGATTCACCTTTCAGTAATTTTGGCATGGCCTGGGTCC
GCCAGGCTCCAACGAAGGGTCTGGAGTGGGTTCGCATCCATTAGTACTAGTGG
TGGTAACACTTACTATCGAGACTCCGTGAAGGGCCGATTCACTATCTCCAGA
GATAATGCAAAAAGCACCTATACTGCAATGGACAGTCTGAGGTCTGAGG
ACACGGCCACTTATTACTGTACAACCTCTAGATATAACAGTGGTTCGCCTACTTT
GATTACTGGGGCCAAGGAGTCATGGTTCACAGTCTCCTCAGCTGAAACGGGGC
CGGAGGTAGCGGTGGTGGAGGAAGCGGAGGAGGCGGGTCCGACATTGTGC
TGACCCAGTCTCCTGCTTTGGCTGTGTCTCTAGGGCAGAGGGCCACCATCTCT
TGCAAGACCAACCAGGATGTCTGATTATTATGGCAATAGTTATATACACTGGT
ACCAACAGAAACCAGGGCAACAACCCAAACTCCTCATCTTTTATGATCCAA
CTTAGCATCTGGGATCCCTGCCAGGTTCACTGGTAGAGGGTCTGGGACAGAC
TTCACCCTCACCATTGATCCTGTGGAGGCTGATGATGCTGCAACCTATTACTG
TCAGCAGAGTAGGAATCTTCCGTACACGTTTGGAGCTGGGACCAAGCTGGAA
CTGAAACGGGCTGATGGTGGAGGTAGCGAGCAAAAGTTGATTTCGAAGAG
GACTTGTAACTAGCATAACCCCTCTCTAAACGGAGGGGTTT

scFv #2

GCGAATTAAATACGACTCACTATAGGGCTTAAGTAAAGGAGGAAAAAATATGA
AGTAACAAAAAACAACAGCAGGTGGTCTCGAGGGTGGTGGTTCTCAG
GTACAGCTGCAGCAGTCTGGGGGAGGCTTAGTGCAGCCTGGAAGGTCC
CTGAAACTCTCCTGTGCAGCCTCAGGATTCACCTTTCAGTGA CTATTACA
TGGCCTGGGTCCGCCAGGCTCCAAGAAGGGTCTGGAGTGGGTTCGCAT
CCATTAGTTATGAGGGTAGTAGCACTTACTATGGAGACTCCGTGAAGG
GCCGATTCACTATCTCCAGGGATAATGCAAAAAGCACCTATACTGCA
AAATGAACAGTCTGAGGTCTGAGGACACGGCCACTTATTATTGTGCAA
GACATCTTGCGTATACTACGGATTCCCCGCTTATGGACGCCTGGGGTCA
AGGAGCTTCAGTCACTGTCTCGAGTGCTAAAACAAGCGGCGGAGGTAG
CGGTGGTGGAGGAAGCGGAGGAGGCGGGTCCGACATTGTCTTGACCCA
GTCTCCTTCACTCCTGTCTGCACCTGTGGGAGACAGAGTCACTCTCAAC
TGCAAAGCAAGTCAGAATATTTATAAGAACTTAGCCTGGTATCAGCAA
AAGCTTGGAGAAGCTCCCAAACCTCCTGATTATAATGCAAACAGTTTG
CAAACGGGCATCCCATCAAGGTTCACTGGCAGTGGATCTGGTACAGAT
TTCACACCCACCATCAGCAGCCTGCAGCCTGAAGATGTTGCCACATATT
TCTGCCAGCAGTATTATAGCGGGTACACGTTTGGAGCTGGGACCAAGC

TGGAATTGAAACGTACGGATGGTGGAGGTAGC GAGCAAAAGTTGATTTC
GAAGAGGACTTC TAACTAGCATAACCCCTCTCTAAACGGAGGGGTTT

scFv #3

GCGAATT TAATACGACTCACTATAGGG CTTAAGTAAAGGAGGAAAAAAT ATG A
GTAACAAAAAACAACAGCAGGTGGTCTCGAGGGTGGTGGTTCTCAGGTGCA
GCTGATGGAGTCTGGGGGAGGCTTAGTGCAGCCTGGAAGGTCCATGAACTC
TCCTGTGCAGCCTCAGGATTCACCTTCACTAACTATTACATGGCCTGGGTCCG
CCAGGCTCCAACGAAGGGTCTGGAGTGGGTTCGCATCCATTAGTACTGGTGGT
GATGTCACCTTACTCTCGAGACTCCGTGAGGGGCCGATTCACTATCTCCAGAGA
TAATGCAAAAAGCACCCCTATATATGCAAATGGACAGTCTGAGGTCTGAGGAC
ACGGCCACTTATTACTGTGCAAGACGGCGCTACGGTACCTCGGACTACTTTGA
TTACTGGGGCCAAGGAGTCATGGTCACAGTCTCGAGTGCTAAAACA GCGCGC
GGAGGAAGCGGAGGAGGCGGGTCC GACATCCAGATGACCCAGTCTCCTGCCT
CCCTGTCTGCTTCTCTGGAAGAAATTGTCACCATCACCTGCAAGGCAAGCCA
GGATATTGATGATTACTTATCATGGTATCAGCAGAAACCAGGGAAATCTCCT
CAGCTCCTGATCTATGATGCAACCAGTTTGGCAGATGGGGTCCCATCACGGTT
CAGCGGCAGTAGATCTGACACACAGTATTCTCTTAAGATCAGCAGACCACAG
GTTGATGATTCTGGAATCTATTACTGTCTACAGAGTCACAGTATTCCGTGGAC
GTTCCGTGGCGGCACCAAGCTGGAAATAAAACGTACGGATGGTGGAGGTAG
C GAGCAAAAGTTGATTTCGAAGAGGACTTG TAACTAGCATAACCCCTCTCT
AAACGGAGGGGTTT

scFv #4

GCGAATT TAATACGACTCACTATAGGG CTTAAGTAAAGGAGGAAAAAAT ATG A
GTAACAAAAAACAACAGCAGGTGGTCTCGAGGGTGGTGGTTCTGAGGTGCA
CCTGGTGGAGTCTGGGGGAGGCTCAGTGCAGCCTGGAAGGTCCATGAACTC
TCCTGTGCAGCCTCAGGATTCACCTTCACTAACTATTACATGGCCTGGGTCCG
CCAGGCTCCAACGACGGGTCTGGAGTGGGTTCGCATCCATCAGTACTGGTGGT
GGTAACACTTATTATCGAGACTCCGTGAAGGGCCGATTCACTATTTCCAGAG
ATAATGCACAAAACACCCTTTACCTGCAGATGGACAGTCTGAGGTCTGAGGA
CACGGCCACTTATTACTGTGCAGGGGGGGGACCCGGGTATAACCCCTGATTAC
TGGGGCCAAGGAGTCACGGTCACAGTCTCGAGTGCTAAAACA GCGGCGCGGA
GGTAGCGGAGGAGGCGGGTCC GACATCCAGATGACCCAGACTCCAACAACC
ATGGCTGCATCTCCAGGAGAGAAGGTCACCATCACCTGCCGTGCCAGCTCAA
GTGTAAGCTACATGCACTGGTTCCAGCAGAAGTCAGGCACCTCCCCCAAACC
CTGGATTTATGACACATCCAAGCTGGCTTCTGGAGTCCCAGATCGCTTCAGTG
GCAGTGGGTCTGGGACCTCTTATTCTCTCACAATCAGCTCCATGGAGGCTGAA
GATGCTGCTACTTATTACTGTCTGCAGAGGAGTAGTTACCCGTACACGTTTGG
AGCTGGGACCAAGCTGGAAATAAAACGTACGGATGGTGGAGGTAGC GAGCA
AAAGTTGATTTCGAAGAGGACTTG TAACTAGCATAACCCCTCTCTAAACGG
AGGGGTTT

scFv #5

GCGAATTAAATACGACTCACTATAGGGCTTAAGTAAAGGAGGAAAAAATATCA
GTAACAAAAAACAACAGCAGGTGGTCTCGAGGGTGGTGGTTCTCAGGTTC
TCTGCAACAGTCTGGGGCTGCACTGGTGAAGCCTGGGGCCTCTGTGAAGTTG
TCTTGCAAAGCTTCTGGTTATACATTCAGTACTACTATATACACTGGGTGAA
GCAGAGTCATGGAAAGAGCCTTGAGTGGATTGGGTATATTAATCCTAACAGT
GGTTATACTAACTACAATGAAAAGTTCAAGAGCAAGGCCACATTGACTGTAG
ACAAATCCACCAATACAGCCTATATGGAGCTTAGCAGATTGACATCTGAGGA
CTCTGCAACCTATTACTGTACAAGAGAGGGGTCTGACTACAGTGGTCCGTTTG
CTTACTGGGGCCAAGGCACTCTGGTCACTGTCTCGAGTGCTAAAACAAGCGG
CGGAGGTAGCGGTGGTGGAGGAAGCGGAGGAGGCGGGTCCGACATCCAGAT
GACACAGTCTCCCACATCTATGTTACATCAGTAGGAGACAGGGTTACCATG
AGCTGCAAGGCCAGTCAGAATGTAGGTATTAATGTAGGCTGGTACCAACAGA
AAACAGGGCAGTCTCCTAAACGGCTTATCTACTGGGCATCCAACCGGGACAC
TGGGGTCCCTGATCGCTTCACAGGTAGTGGATCTGGGACAGATTTCACTCTCA
CCATCAGCAACATGCAGGCTGAAGACCCGGCTATTTATTACTGTCTGCAGCAT
AACTCCTATCCGCTCACGTTCTGGTCTGGGACCAAGCTGGAAATAAAACGTA
CGGATGGTGGAGGTAGCGAGCAAAAGTTGATTTCGAAGAGGACTTGTA
AGCATAACCCCTCTCTAAACGGAGGGGTTT

scFv #6

GCGAATTAAATACGACTCACTATAGGGCTTAAGTAAAGGAGGAAAAAATATCA
GTAACAAAAAACAACAGCAGGTGGTCTCGAGGGTGGTGGTTCTGAGGTGA
AGCTGGTGGAGTCTGGCCCTGGGATATTGCAGCCCTCCCAGACCCTCAGTCT
GACTTGCACCTTCTCTGGGTTTTCACTGAGCACTTATAGTATGGGTGTGGGCT
GGATTCGTCAGCCTTCAGGGAAGGGTCTGGAGTGGCTGGCAAACATTTGGTG
GGATGATGATAAGTTCTCCCATCCATCTCTGAAAAACCGGCTCACAATCTCCA
AGGACACCTCCAACAACCAAGCATTCCTCAAGATCACCAATGTGGACACTGC
AGATACTGCCACATACTACTGTACTCGGATCAGAGGTAACAACACTACGCGGGG
GACTACTTTGATTACTGGGGCCAAGGAGTCATGGTCACAGTCTCGAGTGCTA
AAACAAGCGGCGGAGGTAGCGGTGGTGGAGGAAGCGGAGGAGGCGGGTCCG
ACATCCAGATGACACAGTCTCCTTCACTCCTGTCTGCATCTGTGGGAGACAGA
GTCCTCTCAGCTGCAAAGGAAGTCAGAATATTCACAATTATTTAGCCTGGTA
CCAACAAAGGCTTGGAGAAGCTCCCAAACCTCCTGATACATAAAACAAACAGT
TTGCAAACGGGCATCCCATCAAGGTTCAAGTGGCAGTGGATCTAATACAGATT
ACACACTCACCATCAGCAGCCTGCACTCTGAAGATCTTGCCACATATTACTGC
TATCAGTATTACAACGGGCTCACGTTCTGGTCTGGGACCAAGCTGGAAATAA
AACGTACGGATGGTGGAGGTAGCGAGCAAAAGTTGATTTCGAAGAGGACTTG
CTAACTAGCATAACCCCTCTCTAAACGGAGGGGTTT

scFv #7

GCGAATTAAATACGACTCACTATAGGGCTTAAGTAAAGGAGGAAAAAATATGA
GTAACAAAAAACAACAGCAGGTGGTCTCGAGGGTGGTGGTTCTGAGGTGCA
CCTGGTGGAGTCAGGACCTGGTCTGGTGCAGCCCTCAGAGACCCTGTCCCTC
ACCTGCACTGTCTCTGGGTTCTCACTAACCAGCTATAGTGTAAGTTGGGTTTCG
CCAGCCTTCAGGAAAAGGTCCTGAGTGGATGGGAAGAATGTGGTATGATGGA
GACACAGCATATAATTCAGCTCTCAAATCCCGACTGAGCATCAGCAGGGACA
CCTCCAAGAACCAAGTTTTCTTAAAAATGAACAGTCTGCAAACCTGATGACAC
AGGCACTTACTACTGTACCAGAGATCGCTCGGCCAAACTACGGAGGGTTCGCC
CGCAGGGAGTCACGGTCACAGTCTCGAGTGCTAGGCGCGGAGGTAGCGGTG
CTGGAGGAAGCGGAGGAGGCGGGTCCGACATCCAGTTGACCCAGTCTCCAG
CTTCCCTGTCTGCATCTCTGGGAGAACTGTCAACATCGAATGTGAGCAAGT
GAGGACATTTACAGTAATTTAGCGTGGTATCAGCAGAAACCAGGGAACTCTC
CTCAGCTCCTGATCTATGATGCAAATAGCTTGGCAGATGGGGTCCCATCACG
GTTCACTGGCAGTGGATCTGGCACACAGTATTCTCTAAAGATAAACAGCCTG
CAATCTGAAGATGTCGCAAGTTATTTCTGTCAACGGTATAACAATTATCCTCC
CACGTTTTTGA*GCTGGGACCAAGCTGGAATTGAAACGTACGGATGGTGGAGG
TAGCGAGCAAAAAGTTGATTTCCGAAGAGGACTTGTAAGTACATAACCCCTC
TCTAAACGGAGGGGTTT

*: In-frame stop codon.

scFv #8

GCGAATTAAATACGACTCACTATAGGGCTTAAGTAAAGGAGGAAAAAATATGA
GTAACAAAAAACAACAGCAGGTGGTCTCGAGGGTGGTGGTTCTGAGGTGCA
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ACCTGCACTGTCTCTGGGTTCTCATTAAACCAGCTATCATGTGCACTGGGTTTCG
ACAGCCTCCAGGGAAAGGTCTGGAGTGGATGGGAGTAATGTGGAGTGATGG
AGACACATCATATAATTCAGCTCTCAAATCCCGACTGAGCATCAGCAGGGAC
ACCTCCAAGAGCCAAGTTTTCTTAAAAATGAGCAGTCTGCAAACCTGAAGACA
CAGCCACTTACTACTGTGCCAGAGATCCCTTTATAACAACCTACGGACTTTGAT
TACTGGGGCCAAGGAGTCACGGTCACAGTCTCGAGTGCTAAAACAAGCGGCGG
GAGGTAGCGGTGGAGGCGGGTCCGATGTTTTGATGACACAAAGTCCATTCTC
CCTGGCTGTGTCAGAAGGAGAGATGGTCACTATAAACTGCAAGTCCAGTCAG
AGTCTTTTATCCAGTGGAAACCAAAAGAAGTACTTGGCTTGGTACCAGCAGA
AACCAGGGCAGTCTCCTAAACTACCGATCTACTATGCATACACTAGGCAATC
AGGGGTCCCTGATCGCTTCATAGGCAGTGGATCTGGGACAGACTTCACTCTG
ACCATCAGCGATGTGCAGGCTGAAGACCTGGCAGATTATTACTGCCTGCAGC
ATTACAGTTCTCCGTACACGTTTGGAGCTGGGACCAAGCTGGAAATAAAACG
TACGGATGGTGGAGGTAGCGAGCAAAAAGTTGATTTCCGAAGAGGACTTGTA
CTAGCATAACCCCTCTCTAAACGGAGGGGTTT

scFv #9

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GCTGCAGGAGTCAGGACCTGGCCTGGTGC AACCAACACAGACCCTGTCCATC
ACATGTACTGTTTCTGGGTTCTCATTAAACCAGCTATTATATGCAGTGGGTTCTG
CCAGACTCCAGGAAAGGGACTAGAATGGATGGGATTTATACGGAGTGGTGG
AAGCACAGAGTATAATTCAGAGTTC AAATCCCGACTTAGCATCAGCAGGGAC
ACCTCCAAGAACCAAGTTTTCTTAGAAATGAACAGTCTGAAAACAGAGGACA
CAGGCGTGTACTACTGTGCCAGAGCGGCTATAGCAGCTATATCCCTTATGGAT
GCCTGGGGTCAAGGAGCTTCAGTCACTGTCTCGAGTGCTAAAACA GCGGCGG
GAGGTAGCGGTGGTGGAGGAAGCGGAGGAGGCGGGTCCGATGTTGAGCTGA
CCCAGACTCCATCTTATCTTGCTGCGTCTCCTGGAGAAAGTGTTCATCAAT
TGCAAGGCAAGTAAAAGCATTAAACATACTTAGCCTGGTATCAGGAGAAAC
CTGGGAAAACGAATAAGCTTCTTATCTACTCTGGGTCAACTTTGCAATCTGGA
ACTCCATCGAGATTCAGTGGCAGTGGATCTGGTACAGATTTACGCTCACCAT
CAGAAGCCTGGAGCCTGAAGATTTTGCAGTCTACTACTGTCAACAGCATAAT
GAATACCCGCTCACGTTCTGGTCTGGGACCAAGCTGGAAATAAAACGTACGG
ATGGTGGAGGTAGC GAGCAAAAGTTGATTTCCGAAGAGGACTTGTA ACTAGC
ATAACCCCTCTCTAAACGGAGGGGTTT

scFv #10

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GCTGGTGGAGTCTGGGGGAGGCCTAGTGCAGCCTGGAAGGTCCCTGAACTC
TCCTGTGCAGCCTCAGGATTCATTTAGTA ACTATTACATGGCCTGGGTCCG
CCAGGCTCCAAAGAAGGGTCTGGAGTGGGTGCGAACCATTAGTACCAGTGGT
AGCAGAACTTACTATCCAGACTCCGTGAAAGGCCGATTCACTATCTCCAGAG
ATAATGCAAAAAGCAGCCTATACCTGCAAATGAACAGTCTGAAGTCTGAGGA
CACGGCCACTTATTACTGTGCAAGAGGATCAACTACGAATTGGTTTGCTTACT
GGGGCCAAGGCACTCTGGTCACTGTCTCGAGTGCTAAAACA GCGGCGGAGG
TAGCGGTGGTGGAGGAAGCGGAGGAGGCGGGTCCGACATCCAGATGACCCA
GTATCCTTCACTCCTGTCTGCATCTGTGGGAGACAGAGTCACTCTTAGCTGCA
AAGGAAGTCAGAATATTAACAATTACTTAGCCTGGTACCAACAAAAGCTTGG
AGAAGCTCCCAAACCTCTGATATATAATACAAACAGTTTGAAACGGGCATC
CCATCAAGGTTCAGTGGCAGTGGATCTGGTACAGATTACACACTCACCATCA
GCAGCCTGCAGCCTGAAGATGTTGCCACATATTTCTGCTATCAGTATAACAAC
GGGTACACGTTTGGAGCTGGGACCAAGCTGGAAGTGAACGTACGGATGGTG
GAGGTAGC GAGCAAAAGTTGATTTCCGAAGAGGACTTGTA ACTAGCATAACC
CCTCTCTAAACGGAGGGGTTT

scFv #11

GCGAATTAAATACGACTCACTATAGGGCTTAAGTAAAGGAGGAAAAAATATGA
GTAACAAAAAACAACAGCAGGTGGTCTCGAGGGTGGTGGTTCTGAGGTGA
AGCTGGAGGAGTCTGGGGGAGGCTTAGTGCAGCCTGGAAGGTCCCTGAAACT
CTCCTGTGCAGCCTCAGGATTCACCTTTCAGTAACTATGACATGGCCTGGGTCC
GCCAGGCTCCAACGAAGGGTCTGGAGTGGGTTCGCATCCATTAGTCCTAGTGG
TGGTAGCACTTACTATCGAGACTCCGTAAAGGGCCGATTCACTGTCTCCAGA
GATAATGCAAAAAGCAGCCTATACCTGCAAATGGACAGTCTGAGGTCTGAGG
ACACGGCCACTTATTACTGTGCAAGACATAAGAATCCCGGGTATAACCAGGA
TTACTGGGGCCAAGGAGTCACGGTCACAGTCTCGAGTGCTAAAACAAGCGGGC
GGAGGTAGCGGTGGTGGAGGAAGCGGAGGAGGCGGGTCCGACGTTGTGAT
GACCCAGACTCCATCCTCCCAGGCTGTGTTCAGCAGGGGAGAAGGTCAC
TATGAGCTGCAAGTCCAGTCAGAGTCTTTTATACAATGAAAACAAAAA
GAACTACTTGGCCTGGTACCAGCAGAAACCAGGGCAGTCTCCTAAACT
GCTGATCTACTGGGCATCCACTAGGGAATCTGGGGTCCCTGATCGCTTC
ATAGGCAGTGGATCTGGGACAGATTTCACTCTGACCATCAGCAGTGTG
CAGGCAGAAGACCTGGCTGTTTATTACTGCCAGCAGTACTATAACTTTC
CTCGGACGTTTCGGTGGAGGCACCAAGCTGGAAATAAAACGTACGGATG
GTGGAGGTAGCGAGCAAAAGTTGATTTCGAAGAGGACTTCTAACTAGCATA
ACCCCTCTCTAAACGGAGGGGTTT

scFv #12

GCGAATTAAATACGACTCACTATAGGGCTTAAGTAAAGGAGGAAAAAATATGA
GTAACAAAAAACAACAGCAGGTGGTCTCGAGGGTGGTGGTTCTGAGGTGCA
GTTGGTGGAGTCTGATGGAGGCTTAGTGCAGCCTGGAAGGTCCCTAAAACTC
TCCTGTGCAGCCTCAGGATTCACCTTTCAGTGACTATTACATGGCCTGGGTCCG
CCAGGCTCCAACGAAGGGGCTGGAGTGGGTTCGCAACCATTAGTTATGATGGT
AGTAGCACTTACTATCGAGACTCCGTGAAGGGCCGATTCACTATCTCCAGAG
ATAATGCAAAAAGCACCCCTATACCTGCAAATGGACAGTCTGAGGTCTGAGGA
CACGGCCACTTATTACTGTGCAAGAACGGATAGCAGCTATATCTCTGATTACT
GGGGCCAAGGAGTCACGGTCACAGTCTCGAGTGCTAAAACAAGCGGCGGAG
GTAGCGGTGGTGGAGGAAGCGGAGGAGGCGGGTCCAACATCCAGATGACCC
AGTCTCCATCCTCTCTGGCTGTGTTCAGCAGGAGAGACGGTCACTATAAACTGC
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GGTACCAGCAGAAACCAGGGCAGTCTCCTAAACTGCTGATCTACTGGGCATC
TACTAGGCAATCTGGTGTCCCTGATCGCTTCATAGGCAGTGGATCTGGGACA
GACTTCACTCTGACCATCAGCAGTGTGCAGGCAGAAGATCTGGCAATTTATT
ACTGTCAGCAGTATTATGATACTCCATTACGTTTCGGCTCAGGGACGAAGTTG
GAAATAAAACGTACGGATGGTGGAGGTAGCGAGCAAAAGTTGATTTCGAAG
GAGGACTTCTAACTAGCATAACCCCTCTCTAAACGGAGGGGTTT

scFv #13

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GCTGGTGGAGTCTGGGGGAGGCTTAGTGCAGCCTGGAAGGTCCATGAACTC
TCCTGTGCAGCCTCAGGATTCACCTTCAGCAACTATGACATGGCCTGGGTCCG
CCAGGCTCCAAAGAAGGGTCTGGAGTGGGTCGCAACCATTAGTTATGATGGT
AGTAGCACTTACTTTTCGAGACTCCGTGAAGGGCCGATTCACTATCTCCAGAG
ATAATGAAAAAAGCACCCCTATACCTGCAAATGGACGGTCTGAGGTCTGAGGA
CACGGCCACTTATTACTGTACAACACGGGGGATTACCTTCCCGCACTACTTTG
ATTACTGGGGCCAAGGAGTCATGGTCACAGTCTCCTCAGCTGAAAGCGGCGG
AGGTAGCGGTGGTGGAGGAAGCGGAGGAGCGGGTCCGATGTTGTGCTGAC
CCAGACTCCACCCACTTTGTCTGGCTACCATTGGACAATCAGTCTCCATCTCTT
GCAGGTCAAGTCAGAGTCTCTTACATAGTAATGGAAACACCTATTTTCATTGG
TTACTACAGAGGCCAGGCCAATCTCCACAGCTTCTAATTCACCTTGGTATCCAG
ACTGGAATCTGGGGTCCCCAACAGGTTCAAGTGGCAGTGGGTCAGGAACTGAT
TTCACACTCAAAATCAGTGGAGTAGAGGCTGAGGATTTGGGAGTTTTTTATTG
TATACAAGGTACCCATGCTCCGTGGACGTTTCGGTGGAGGCACCAGGCTGGAA
TTGAAACGGGCTGATGGTGGAGGTAGCGAGCAAAAGTTGATTTCGAAGAGG
ACTTCTAACTAGCATAACCCCTCTCTAAACGGAGGGGTTT

scFv #14

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TCCTGCTTAGCCTCTGGATTCACCTTCAGTAACTATGGAATGAACTGGATTCTG
CCAGGCTCCAGGGAAGGGGCTGGAGTGGGTTGCATCTATTAGTAGTAGTAGC
AGTTACATCTACTATGCAGACACAGTGAAGGGCCGATTACCATCTCCAGAG
AAAATGCCAAGAACACCCTGTACCTGCAAATGACCAGTCTGAGGTCTGAAGA
CACTGCCTTGTATTACTGTGCAAGAGAGGGCCGGGGGCTATGGATGCCTGG
GGTCAAGGAACTTCAGTCACTGTCTCCTCAGCTGAAAGCGGCGGAGGTAGCG
GTGGTGGAGGAAGCGGAGGAGCGGGTCCGACATTCAGATGACCCAGTCTCC
ATCTCCATGTCTGTGTCTCTGGGAGACACAGTCACTATTACTTGCCGGGCAA
GTCAGGACGTTGGGATTTATGTAACTGGTTCCAGCAGAAACCAGGGAAATC
TCCTAGGCGTATGATTTATCGTGCAACGAACTTGGCAGATGGGGTCCCATCA
AGGTTACAGCGGCAGTAGGTCTGGATCAGATTATTCTCTCACCATCAGCAGCCT
GGAGTCTGAAGATGTGGCAGACTATCACTGTCTACAGTATGATGAGTATCCG
TACACGTTTGGAGCTGGGACCAAGCTGGAAGTGAACGGGCTGATGGTGGAG
GTAGCGAGCAAAAGTTGATTTCGAAGAGGACTTCTAACTAGCATAACCCCT
CTCTAAACGGAGGGGTTT

scFv #15

GCGAATTAATACGACTCACTATAGGGCTTAAGTAAAGGAGGAAAAAATATGA
GTAACAAAAAACAACAGCAGGTGGTCTCGAGGGTGGTGGTTCTGAGGTGCA
GCTGGTGGAGTCTGGGGGAGGCTTAGTGCAGCCTGGAAGGTCCATGAACTC
TCCTGTGCAGCCTCAGGATTCACCTTTCAGTAACCTATTACATGGCCTGGGTCCG
CCAGGCTCCAACGAAGGGTCTGGAGTGGGTTCGCATCCATTAGTACTGGTGGT
GGTAACACTTACTATCGAGACTCCGTGAAGGGCCGATTCACTATCTCCAGAG
ATAATGCAAAAAGCACCCCTATACCTGCAAATGGACAGTCTGAGGTCTGAGGA
AACGGCCACTTATTACTGTGCAAGACATAGGTATACTACGGATTATTACTACG
GCTGGTACTTTGACTTCTGGGGCCCAGGAACCATGGTCACCGTGTCTCTCAGCC
CAAACA GCGGCGGAGGTAGCGGTGGTGGAGGAAGCGGAGGAGCGGGTCC
GATGTTGTGATGACCCAGACACCACCATCTTTGTTCGGTTGCCATTGGACAGTC
AGTCTCCATCTCTTGCAAGTCAAGTCAAAGCCTCGTAGCTAGTGATAAAAAT
ACATATTTGAATTGGTTTTTACAGAGTCCTGGCCGGTCTCCGAGGCGCCTAAT
CTCTCAGGTGTCTAAGCTGGACTCTGGAGTCCCTGACAGGTTCAAGTGGCAGTG
GGTCAGAGAAAGATTTACACTTAAAATCAGCAGAGTGGAGACTGAAGATCT
GGGAGTTTATTACTGCCTGCAAGCTACACATCTTCCATTCACGTTCCGGCTCAG
GGACGAAGTTGGACATGAAACGGGCTGATGGTGGAGGTAGC GAGCAAAAGT
TGATTTCCGAAGAGGACTTG TAACTAGCATAACCCCTCTCTAAACGGAGGGG
TTT

Positive control scFv (Pos)

GCGAATTAATACGACTCACTATAGGGCTTAAGTAAAGGAGGAAAAAATATGA
GTAACAAAAAACAACAGCAGGTGGTCTCGAGGGGGGAGGCTCTGGAGGGG
GTTCCGAGGTCCAGCTTGTAGAATCCGGAGGCGGGCTGGTGCAGCCCGGCCG
CAGTCTTCGCTTGAGCTGTGCTGCTTCTGGATTACGTTTCGATGATTATGCTAT
GCACTGGGTCCGCCAAGCACCTGGAAAAGGGCTGGAATGGGTGTCAGCGATT
ACTTGGAATTCGGGGCACATCGATTATGCAGACTCCGTTCGAGGGGCGCTTTA
CCATTAGTCGTGATAATGCGAAAAACAGCCTTTACCTTGACATGAATTCGTTA
CGTGCTGAGGATAACCGCGGTGTATTACTGTGCAAAGGTGAGCTACTTGAGCA
CCGCCAGTTCACTGGACTACTGGGGACAAGGTACGCTTGTACCGTTTCGTCA
GCA TCAGGCGGCGGAGGTAGCGGGGGTGGGGGAAGCGGAGGGGGCGGGTCC
GATATCCAGATGACCCAAAGTCCTTCATCTCTTAGCGCGTCAGTCGGGGACC
GCGTTACAATCACATGCCGCGCCTCGCAGGGGATCCGTAACCTATCTGGCATG
GTACCAGCAGAAACCTGGTAAGGCGCCAAAATTGTTAATTTACGCGGCGTCT
ACACTTCAGAGCGGTGTCCCGTCTCGTTTCAGTGGTTCAGGTTCCGGTACGGA
CTTCACTCTTACAATCTCCTCTTTGCAGCCAGAAGACGTAGCAACATACTACT
GCCAACGCTATAACCGCGCACCATAACAGTTCCGGTCAAGGGACAAAGGTAGA
GATCAAGCGCACGGGTGGAGGTAGC GAGCAAAAGTTGATTTCCGAAGAGGA
CTTG TAACTAGCATAACCCCTCTCTAAACGGAGGGGTTT

Negative control scFv (Neg)

GCGAATTAAATACGACTCACTATAGGGCTTAAGTAAAGGAGGAAAAAATATGA
GTAACAAAAAACAACAGCAGGTGGTCTCGAGGGTGGTGGTTCTGAGGTGA
AGCTGGAGGAGTCTGGGGGCGGCTTGGTGCAGCCTGGAAGGTCCCTGAAACT
CTCCTGTGCAGCCTCAGGATTCACTTTCAGTAACTATGGCATGCACCGGATCC
GCCAGGCTCCGACGAAGGGTCTGGAGTGGGTTCGCATCCATTAGTCCTAGTGG
TGGTAGCACTTACTATCGAGACTCCGTGAAGGGCCGATTCACTATCTCCAGG
GATAATGCAAAAAGCACCTATACCTGCAAATGGACAGTCTGAGGTCTGAGG
ACACGGCCACTTATTACTGTGCAACAGAGCGGGAGATTACTATAGCAGCTAT
CCCTTACTACTTTGATTACTGGGGCCAAGGAGTCATGGTCACAGTCTCGAGTG
CTAAAACAAGCGGCGGAGGTAGCGGTGGTGGAGGAAGCGGAGGAGGCGGCT
CGGATATTGTGATGACACAGTCTCCAACAACCATGGCTGCGTCTCCTGGGGA
GAAGGTCACCACCACCTGTCATGCCACCTCCAGTGGAATCTACATGAACTGG
CACCAGCAGAAGTCAGGCACCTCTCCCAAACCTCTGGATTTATGACACATCCA
GACTGGCTTCTGGAGTCCCAGATCGCTTCAGTGGCAGTGGGTCTGGGACCTCT
TATTCTCTCACAATCAACACCATGGAGACTGAAGATGCTGCCACTTATTATTG
CCAGCAGTGTTGTCCTACCCCGCCCATCACGTTTCGGCTCAGGGACGAGGTTG
GAAATAAAACGTACGGATGGTGGAGGTAGCGAGCAAAAGTTGATTTCGAA
GAGGACTTGTAAC TAGCATAACCCCTCTCTAAACGGAGGGGTTT