

SUPPLEMENTARY MATERIAL FOR:

Protein III-based single-chain antibody phage display using bacterial cells bearing an additional genome of a gene-III-lacking helper phage

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maqiqlqsgpelvkgasvkisckasgyftnylnwvkqkpgqglewigwiypngkteynekfkgkatltvdtssntayiqllsstedavyfcarlittaidvlgagttv
tvssgggsgggsgggsgggdivmsqspaimsaspekvmtcsassvsymhfwqkpgtspklwiystnlasgvparfsgsgsgtsysltisrmeadaatyycqqrss
ypptfgsgtrleikr

Supplementary Data S1. The amino acid sequence of the single-chain variable fragment (scFv) encoding by pCANTAB-5ET-19.

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Supplementary Table S1. Primers for Mouse Single-Chain Variable (scFv) Library

A. Primers for Generating V_H-Linker	
Upstream Primer Sequence	
OP1	5'- ACTGCGGCCAGCCGGCC ATGGCCGAGGTGCAGCTTSAGGARTCAGG-3'
OP2	5'- ACTGCGGCCAGCCGGCC ATGGCCGATGTGCAGCTTSAGGAGYCRGG-3'
OP3	5'- ACTGCGGCCAGCCGGCC ATGGCCCAGGTGCAGCTGAAGSAGYCAGG-3'
OP4	5'- ACTGCGGCCAGCCGGCC ATGGCCGAGGTYCAGCTGSARCARTCTGG-3'
OP5	5'- ACTGCGGCCAGCCGGCC ATGGCCCAGGTYCARCTGCARCAGYCTGG-3'
OP6	5'- ACTGCGGCCAGCCGGCC ATGGCCGARGTGAAGCTGSTGGARTCTGG-3'
OP7	5'- ACTGCGGCCAGCCGGCC ATGGCCGAGGTTTCAGCTTCAGCAGWCTGG-3'
OP8	5'- ACTGCGGCCAGCCGGCC ATGGCCGAAGTGCAGCTGKTGGAGWCTGG-3'
OP9	5'- ACTGCGGCCAGCCGGCC ATGGCCCAGATCCAGTTGCTGCAGYCTGG-3'
Downstream Primer Sequence	
OP10	5'- GCCAGAGCCACCTCCGCCTGA ACCGCCTCCACCTGAGGAGACGGTGACCGTRGTCCC-3'
OP11	5'- GCCAGAGCCACCTCCGCCTGA ACCGCCTCCACCTGAGGAGACTGTGASAGTGGTGCC-3'
OP12	5'- GCCAGAGCCACCTCCGCCTGA ACCGCCTCCACCTGCAGAGACAGTGACCAG-3'
OP13	5'- GCCAGAGCCACCTCCGCCTGA ACCGCCTCCACCTGAGGAGACGGTGASTGAGGTTCC-3'
B. Primers for Generating κ Light Chain	
Upstream Primer Sequence	
OP14	5'- TTCAGGCGGAGGTGGCTCTGGC GGTGGCGGATCGGACATTGTGATGWACAGWCTCC-3'
OP15	5'- TTCAGGCGGAGGTGGCTCTGGC GGTGGCGGATCGGATGTTKTGATRACCCAACTCC-3'
OP16	5'- TTCAGGCGGAGGTGGCTCTGGC GGTGGCGGATCGGATATTGTGATRACBCAGGCWGC-3'
OP17	5'- TTCAGGCGGAGGTGGCTCTGGC GGTGGCGGATCGGACATTGTGCTGACMCARTCTCC-3'
OP18	5'- TTCAGGCGGAGGTGGCTCTGGC GGTGGCGGATCGSAAAWTGTKTSACCCAGTCWCC-3'
OP19	5'- TTCAGGCGGAGGTGGCTCTGGC GGTGGCGGATCGGAYATYVWGATGACMCAGWCTCC-3'
OP20	5'- TTCAGGCGGAGGTGGCTCTGGC GGTGGCGGATCGCAAATTGTTCTCACSCAGTCWCC-3'
OP21	5'- TTCAGGCGGAGGTGGCTCTGGC GGTGGCGGATCGTCATTATTGCASGTGCTTGTGGG-3'
Downstream Primer Sequence	
OP22	5'- GTCATTCTGCGGCCGCCGTTT GATTTCAGCTTGGTGCCWCC-3'
OP23	5'- GTCATTCTGCGGCCGCCGTTT TATTTCCAGCTTGGTSCCCCC-3'
OP24	5'- GTCATTCTGCGGCCGCCGTTT TATTTCCAGTCTGGTCCCATC-3'
OP25	5'- GTCATTCTGCGGCCGCCGTTT TATTTCCAACCTTGTMCCGA-3'
OP26	5'- GTCATTCTGCGGCCGCCGTTT CAGCTCCAGCTTGGTSCCAGC-3'
C. Primers for Generating V_λ Fragments	
Upstream Primer Sequence	
OP27	5'- TTCAGGCGGAGGTGGCTCTGGC GGTGGCGGATCGCAGGATGCTGTTGTGACTCAGGAATC-3'
Downstream Primer Sequence	
OP28	5'- GTCATTCTGCGGCCGCCGTTT ACCTAGGACAGTSAGYTTGG-3'
D. Adaptor Primers	
Linker with Heavy Chains: OP29	5'-GTCCTCGCA ACTGCGGCCAGCCGGCCATGGCC -3'
Linker with Light Chains: OP30	5'-TGAGT CATTCTGCGGCCGCCGTTT -3'
<p>The linker sequence is indicated in bold. Underlined italics indicate restriction sites for cloning. M = A or C; R = A or G; W = A or T; S = C or G; Y = C or T; K = G or T; V = A or C or G; H = A or C or T; D = A or G or T; B = C or G or T; N = G or A or T or C.</p>	