

Anti-CRISPR	DNA sequence	Protein sequence
<b>AcrIIc1<sub>Boe</sub></b>	ATGGCCAAGGAGGTCTTCAAGCTGAAGCCGGAGCTGGTGACGT ACAAGGGCTGCGGGTGGGCCCTGGCCTGCATCAAGGATGGCGA GATCATCGACCTGACCTACGTGCGTGACCTGGGCATCGAGGAG TACGATGAAAACCTTCGACGGCCTGGAGCCGGAGATCATCTATT ACGACGTCGTGCGCTCGCAGGCGTGCAAGGAAGTGGCCTACCG CTATGAAGAGATGGGCGAATTCACCTTCGGCCTCTGCAGCTGC TGGGAATTCAACGTCATGTAA	MAKEVFKLKPELVITYKGCWALACIK DGEIIDLTYVRDLGIEEYDENFDGLE PEIIYYDVVASQACKEVAYRYEEMGE FTFGLCSCWEFNM
<b>AcrIIc1<sub>Nme</sub></b>	ATGGCCAATAAACTTATAAAATTGGAAAAATGCCGGGTATG ATGGCTGCGGTCTTTGTCTTCGCGCCATTTCTGAAAATGAAGC TATCAAAGTTAAGTATTTGCGCGACATTTGTCTGATTACGAT GGCGATGATAAAGCTGAGGATTGGCTGAGATGGGGAACGGACA GCCGCGTCAAAGCAGCCGCTCTTGAATGGAGCAGTACGCATA TACGTCGGTTGGTATGGCCTCATGTTGGGAGTTTGTGAACTA TGA	MANKTYKIGKNAGYDGCGLCLAISE NEAIKVYLRDPCDYDGDCKAEDWL RWGTDSRVKAAALEMEQYAYTSVGMA SCWEFVEL
<b>AcrIIc2<sub>Nme</sub></b>	ATGGCCAGCAAAAACAATATTTTCAACAAGTATCCAACAATTA TTCACGGCGAAGCGCGGGGGAGAAATGACGAATTTGTGGTGCA TACGCGCTACCCGCGATTCTTGGCGCGGAAATCTTTTGACGAC AATTTACGGGCGAAATGCCTGCAAAACCTGTTAACGGGGAAT TGGGACAAAATCGGCGAACCGCGCCGCTTGCTTATGATTCACG GCTTGGTTTTGTGGCTTTCTGACTTCATCATGTTGGACAACAAC AAGCCGAAAAACATGGAGGATTGGCTTGGGCAATTTAAAGCCG CCTGCGATCGAATCGCGGCGGATGATTTGATGCTGAATGAAGA TGCGGCGGATTTGGAGGGCTGGGATGATTGA	MASKNNIFNKYPTIIHGARGENDEF VVHTRYPRFLARKSFDDNFTGEMPAK PVNGELGQIGEPRLAYDSRLGLWLS DFIMLDNNKPKNMEDWLGQLKAACDR IAADDLMLNEDAADLEGWDD
<b>AcrIIc3<sub>Nme</sub></b>	ATGGCCTTCAAACGCGCTATTATCTTCACTTCTTTCAACGGCT TTGAAAAAGTTTCTCGAACTGAAAAACGCCGCTTGCCAAAAT CATCAATGCTCGAGTTTCCATCATCGACGAATACTTGAGAGCC AAAGACACCAACGCATCGCTTGACGGTCAGTACCGCGCTTTCT TGTTCAACGACGAATCGCCGCAATGACCGAATTTCTGGCAA ACTTAAAGCCTTTGCCGAAAGTTGCACCGGAATCAGCATCGAC GCATGGGAAATTGAAGAAAAGCGAATACGTCCGCTGCCGGTGG AACGCAGGGATTTCTTAGCGGCAGCCAACGGCAAAGAGATTTT TAAAATTTAA	MAFKRAIIFTSFNGFEKVSRTKRRRL AKIINARVSIIDEYLRAKDTNASLDG QYRAFLFNDESPAMTEFLAKLKAF SCTGISIDAWIEESEYVRLPVERRD FLAAANGKEIFKI
<b>AcrE2</b>	ATGGCCAATACCTATCTCATCGACCCCGCAAAAACAACGACA ACTCCGGCGAGCGCTTACGGTTGACGCTGTGACATTACAGC CGCCGCGAAGAGCGCAGCCAACAGATTTCTGGCGAGGAATTC GAGGGCCTCGTATACCGTGAAACCGGGGAGAGTAACGGAAGTG GCATGTTCCAGGCCTACCACCACCTGCACGGCACTAACCGCAC GGAGACGACCGTTGGCTATCCGTTTCATGTAATGGAACCTCTGA	MANTYLIDPRKNNDNSGERFTVDAVD ITAAAKSAAQQILGEEFEGLVYRETG ESNGSGMFQAYHHLHGTRNRTETTVGY PFHVMEEL

Anti-CRISPR	Species	Genome region prediction	Accession #	% ID to *	Size (aa)	Tested?
AcrIIc1	* <i>Brackiella oedipodis</i>	putative integrated conjugative element	WP_028357638.1	100	91	Yes
	<i>Alicyclophilus denitirificans</i>	plasmid	ADV02121.1	26	92	
	<i>Neisseria meningitidis</i>	unclear	WP_049360089.1	29	85	Yes
	<i>Bordetella hinzii</i>	prophage	WP_032962436.1	29	87	
	<i>Verminephrobacter eiseniae</i>	putative integrated conjugative plasmid	WP_041950174.1	23	103	
	<i>Alicyclophilus denitirificans</i>	prophage	WP_013520332.1	28	133	
	<i>Verminephrobacter eiseniae</i>	unclear	ABM59472.1	23	147	
	<i>Pseudoalteromonas lipolytica</i>	unclear	WP_036972373.1	30	117	
	<i>Tistrella mobilis</i>	prophage	WP_014743597.1	32	85	
	<i>Fnollaria massiliensis</i>	putative transposable element	WP_019214717.1	28	149	
	<i>Bordetella sp.</i>	putative integrated conjugative plasmid	WP_019939893.1	29	87	
AcrIIc2	* <i>Neisseria meningitidis</i>	prophage	WP_042743678.1	100	123	Yes
	<i>Neisseria meningitidis</i>	prophage	CWP55982.1	96	132	
	<i>Neisseria meningitidis</i>	prophage	WP_061725849.1	96	123	
	<i>Neisseria meningitidis</i>	prophage	WP_002212355.1	95	123	
	<i>Neisseria meningitidis</i>	prophage	WP_021439709.1	94	123	
	<i>Neisseria meningitidis</i>	prophage	WP_061695141.1	93	123	
	<i>Neisseria meningitidis</i>	prophage	WP_002238681.1	92	123	
	<i>Neisseria meningitidis</i>	prophage	WP_002231709.1	91	123	
	<i>Neisseria meningitidis</i>	prophage	WP_061693463.1	90	123	
	<i>Neisseria meningitidis</i>	prophage	WP_061706309.1	90	123	
	<i>Neisseria meningitidis</i>	prophage	WP_002255675.1	89	123	
	<i>Neisseria meningitidis</i>	prophage	WP_061384810.1	89	123	
	<i>Ralstonia solanacearum</i>	putative integrated conjugative element	WP_019718638.1	33	130	
	<i>Ralstonia solanacearum</i>	putative integrated conjugative element	WP_011001812.1	32	130	
	<i>Ralstonia solanacearum</i>	putative integrated conjugative element	AMP37321.1	32	130	
	<i>Ralstonia syzygii</i>	unclear	CCA86204.1	32	130	
	<i>Ralstonia solanacearum</i>	putative transposable element	WP_013212199.1	32	130	
	<i>Cupriavidus basilensis</i>	unclear	WP_017226229.1	31	128	
	<i>Ralstonia solanacearum</i>	putative transposable element	WP_014616771.1	31	130	
	<i>Ralstonia solanacearum</i>	putative integrated conjugative element	WP_003265552.1	31	130	
	<i>Ralstonia solanacearum</i>	putative integrated conjugative element	WP_013205753.1	31	130	
	<i>Ralstonia mannitolilytica</i>	unclear	WP_045787125.1	31	130	
	<i>Ralstonia pickettii</i>	unclear	WP_024975412.1	31	130	
	<i>Ralstonia pickettii</i>	putative transposable element	WP_004634308.1	31	131	
	<i>Ralstonia sp.</i>	unclear	WP_048932645.1	31	129	
	<i>Ralstonia sp.</i>	unclear	WP_009240943.1	31	131	
	<i>Ralstonia sp.</i>	putative integrated conjugative element	WP_021194849.1	31	129	
	<i>Ralstonia sp.</i>	unclear	WP_039599631.1	31	129	
	<i>Cupriavidus basilensis</i>	unclear	WP_006163540.1	30	128	
	<i>Cupriavidus basilensis</i>	unclear	WP_043347745.1	30	128	
	<i>Burkholderiaceae bacterium</i>	unclear	WP_045235538.1	30	128	
	<i>Ralstonia sp.</i>	unclear	WP_027681138.1	30	131	
	<i>Cupriavidus sp.</i>	unclear	WP_039006692.1	30	126	
	<i>Cupriavidus sp.</i>	unclear	WP_066735805.1	29	130	
	<i>Cupriavidus sp.</i>	unclear	WP_035835797.1	28	130	
	<i>Cupriavidus sp.</i>	unclear	WP_019451860.1	28	130	
	<i>Cupriavidus sp.</i>	unclear	WP_020202326.1	28	128	
	<i>Cupriavidus pauculus</i>	unclear	WP_061960205.1	28	127	
	<i>Cupriavidus metallidurans</i>	unclear	WP_011516945.1	28	130	
	<i>Cupriavidus sp.</i>	unclear	WP_029046347.1	28	126	
	<i>Cupriavidus nantongensis</i>	unclear	WP_062800778.1	28	126	
	<i>Cupriavidus oxalaticus</i>	prophage	WP_063238209.1	28	126	
	<i>Cupriavidus gilardii</i>	unclear	WP_053822121.1	27	127	
	<i>Cupriavidus sp.</i>	unclear	WP_035882356.1	27	127	
	<i>Cupriavidus sp.</i>	unclear	EKZ95749.1	27	130	
	<i>Cupriavidus sp.</i>	unclear	WP_035818297.1	27	126	
	<i>Cupriavidus sp.</i>	unclear	WP_006577295.1	27	127	
	<i>Cupriavidus necator</i>	unclear	WP_013957324.1	27	126	
	<i>Cupriavidus sp.</i>	unclear	WP_012353264.1	27	126	
	<i>Cupriavidus necator</i>	unclear	WP_042886547.1	27	126	
<i>Burkholderiaceae</i>	unclear	WP_010814353.1	27	125		
<i>Ralstonia pickettii</i>	unclear	WP_022535879.1	27	126		
<i>Cupriavidus necator</i>	unclear	WP_058697216.1	27	125		
<i>Cupriavidus sp.</i>	unclear	ODV41125.1	27	130		
<i>Cupriavidus pinatubonensis</i>	unclear	WP_011298372.1	26	130		
<i>Ralstonia sp.</i>	unclear	WP_009522362.1	24	131		
AcrIIc3	* <i>Neisseria meningitidis</i>	prophage	WP_042743676.1	100	116	Yes
	<i>Neisseria meningitidis</i>	prophage	WP_002231708.1	93	116	
	<i>Neisseria meningitidis</i>	prophage	WP_061695142.1	91	116	
	<i>Neisseria meningitidis</i>	prophage	WP_061384809.1	91	116	
	<i>Neisseria meningitidis</i>	prophage	WP_061725842.1	91	116	
	<i>Neisseria meningitidis</i>	prophage	WP_061725391.1	88	116	
	<i>Neisseria meningitidis</i>	prophage	WP_025455551.1	87	116	
	<i>Neisseria meningitidis</i>	prophage	WP_061706308.1	86	116	
	<i>Neisseria meningitidis</i>	prophage	EFM05431.1	87	138	
	<i>Neisseria meningitidis</i>	prophage	WP_002255674.1	85	116	
	<i>Neisseria meningitidis</i>	prophage	WP_002238680.1	86	117	
	<i>Neisseria meningitidis</i>	prophage	EQD23083.1	91	75	
	<i>Neisseria meningitidis</i>	prophage	EQD21340.1	88	73	
	<i>Neisseria meningitidis</i>	prophage	EQD23377.1	78	63	

PLASMID NAME/CONSTRUCT	TARGET SITE	T7E1 F- OLIGO	T7E1 R- OLIGO	SPACER CLONING F-OLIGO	SPACER CLONING R-OLIGO	SPACER SEQUENCE	LOCUS NAME	CHROMOSOME NUMBER
pEJS161: pSimpleII-NmeCas9-sgRNA/NTS1C	N-TS1C	GCACTTATTCTGG CCCCTGACTGC	GAGAACCATGGTCT GGGAAGAAGACC	CACCGTGGTCTGG GGTACAGCCTTGG CA	CAACTGCCAAGGC TGTACCCAGACC AC	GTGGTCTGGGGT ACAGCCTTGCCA	SLC9A9	3
pEJS173: pSimpleII-NmeCas9-sgRNA/NTS4B	N-TS4B	AGAGGAGCCTTCT GACTGCTGCAGA	AGGTCTGGCCTTG CCTTCGA	CACCGGACAGGAG TCGCCAGAGGCCG GT	CAACACCGGCCTC TGGCGACTCCTGT CC	GGACAGGAGTCG CCAGAGGCCGGT	FLJ00328	14
pEJS174: pSimpleII-NmeCas9-sgRNA/NTS4C	N-TS4C	AGAGGAGCCTTCT GACTGCTGCAGA	AGGTCTGGCCTTG CCTTCGA	CACCGGGGCTGGC TCCACGTCGCCGC GC	CAACGCGGCGCGA CGTGGAGCCAGCC CC	GGGGCTGGCTCC ACGTCCGCGCGC	FLJ00328	14
pEJS212: pSimpleII-NmeCas9-sgRNA/NTS7	N-TS7	GGACAGAAGAGAG TAGGGAGACGAG	GCATTCTGTCATCT GCATATCCCTCTG	CACCGAGGGAGAG AGGTGAGCGGATG AA	CAACTTCATCCGC TCACCTCTCTCCC TC	GAGGGAGAGAGG TGACGGATGAA	LOC10050 5797	18
pEJS224: pSimpleII-NmeCas9-sgRNA/NTS8	N-TS8	TGCCTCACGTAAC AGTTGAGACCC	TGCCCTCCCCGCTG GAACCT	CACCGGACGCAAT TCCAGAGGTGATG GG	CAACCCCATCACC TCTGGAATTGCGT CC	GGACGCAATTCC AGAGGTGATGGG	ESPN	1
pEJS236: pSimpleII-NmeCas9-sgRNA/NTS11	N-TS11	ACAGGCAACTCCA TCCATGAGCC	CTTACAGCACTTA GGACTGTCTG	CACCGTTCCAGTT GGGAAGGGCCAGT GC	CAACGCACTGGCC CTTCCCAACTGGA AC	GTTCCAGTTGGG AAGGGCCAGTGC	SMARCB1	22
pEJS323: pSimpleII-NmeCas9-sgRNA/NTS25	N-TS25	GCAATCCACCCAA TGCTAACTGG	TGAACACAAAGGCC TCCAGATCC	CACCGGTTTCTCA TCTGTCTTCTG CT	CAACAGGCAGAAAG ACAGGATGAGAAA CC	GGTTTCTCATCC TGCTTCTGCCT	AC193513	7
pEJS337: pLK.O1-NmeSgRNA/DTS3	D-TS3 (Nme)	GGACAAAAGCAGC CCATTAG	GGACTCCTAAAATG GCCACA	CACCGACTGAAGG CGAGGTCCGGGGC GG	CAACCCGCCCCGG ACCTCGCCTTCAG TC	GACTGAAGGCGA GGTCCGGGGCGG	ARHGEF9	X
pEJS399: pLK.O1-SpySgRNA/DTS3	D-TS3 (Spy)	GGACAAAAGCAGC CCATTAG	GGACTCCTAAAATG GCCACA	ACCGGAAGGGCAG GTCCGGGGCGG	AAACCCGCCCCGG ACCTCGCCTTC	GAAGGCGAGGTC CGGGGCGG	ARHGEF9	X
pEJS341: pLK.O1-NmeSgRNA/DTS7	D-TS7 (Nme)	AGGACTGCTCTCA GCTACCG	AAGGGCAGAGAGGC TAAAGG	CACCGGCTGGCAC CCTCCATGTACCC AG	CAACCTGGGTACA TGGAGGTTGCCAG CC	GGCTGGCACCCCT CCATGTACCCAG	LSP1	11
pEJS400: pLK.O1-SpySgRNA/DTS7	D-TS7 (Spy)	AGGACTGCTCTCA GCTACCG	AAGGGCAGAGAGGC TAAAGG	ACCGGACCCCTC CATGTACCCAG	AAACCTGGGTACA TGGAGGTTGCC	GGCACCCCTCCAT GTACCCAG	LSP1	11
pEJS468: pLK.O1-NmeSgRNA/DTS13-Telomere	D-TS13 (Nme-telomere)	N/A	N/A	ACCGTTAGGGTTA GGGTTAGGGTTAG GG	CAACCCTAACCC TAACCCTAACCC AA	TTAGGGTTAGGG TTAGGGTTAGGG	N/A	N/A
pEJS469: pLK.O1-SpySgRNA/DTS13-Telomere	D-TS13 (Spy-telomere)	N/A	N/A	ACCGTTAGGGTTA GGGTTAGGGTT	AAACAACCCTAAC CCTAACCCTA	TTAGGGTTAGGG TTAGGGTT	N/A	N/A