

**INK2J00077\_SYNJ1\_R219Q\_A09\_BB**  
1504 bp

5' CCACTGCACTCCAACCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAGAAAAAAAAAAAAAAAAACAAAACAAAACAAAAAATTAGCCCG 85  
 3' GGTGACGTGAGGTTGGACCCGCTGTCTCGCTCTGAGGCAGAGTTTTTCTTTTTTTTTTTGTTTTGTTTTGTTTTTAATCGGGC

SYNJ1  
 SYNJ1-201

GCTTGGTGGTGCATGCCTGTAATCCCAGCTACGTGGGAGGCTGAGGCAGAAGAATCGCTTGAACCTGGGAGACAGAGGTTGCAGT 170  
 CGAACCACCACGTACGGACATTAGGGTCGATGCACCCCTCCGACTCCGTCTTCTTAGCGAACTTGGACCCCTCTGTCTCCAACGTCA

SYNJ1  
 SYNJ1-201

GAGACGAGATAATGCCACTGCACTCCAGCCTGGGCAACATTCCGAGACTCCATCTCAAAAATAAATAAATAAATAAATAAATAA 255  
 CTCTGCTCTATTACGGTGACGTGAGGTCGGACCCGTTGTAAGGCTCTGAGGTAGAGTTTTTATTTATTTATTTATTTATTTATTT

SYNJ1  
 SYNJ1-201

TAAATAAATAAATAAATAATTTTTTTAAAAAGTAGAGCTTCATAAATTGGGGTGGGGACATGCATATGTATTCCTTTTTGGAACAA 340  
 ATTTATTTATTTATTTATAAAAAAATTTTTTCATCTCGAAGTATTTAACCCACCCCTGTACGTATACATAAGGAAAAACCTTGT

SYNJ1  
 SYNJ1-201

PCR Forward  
 TAAAGACATAACAGAAATGGGCCAC

GTTAGGTTATAAACACATTATATATAAAGACATAACAGAAATGGGCCACAGATACTAAAAACACAAAAATACTCCTTTTTCTGTGG 425  
 CAATCCAATATTTGTGTAATATATATTTCTGTATTGTCTTTACCCGGTGTCTATGATTTTTGTGTTTTTATGAGGAAAAGACACC

SYNJ1  
 SYNJ1-201

ATCATAGATCACATGTTGAAGGATCTCGTTTTATAGCCCTATCTTCTGATCCCTAGCATAGTAAATGTAATGAATTGATTTGTT 510  
 TAGTATCTAGTGTAACAACCTCCTAGAGCAAAATATCGGGATAGAAGACTAGGGATCGTATCATTTACATTTACTTAACTAAACAA

SYNJ1  
 SYNJ1-201

GTTTGTGCCTTTAAATTTAATAATATTAATTAATTTTCCAGGAGATTATTTAAAAGTCATACTTTGTTACTTAGTATTCCATA 595  
 CAAACACGGAAATTTAAATTATTATAATTTAATTAAGGTCCTCTAATAAAATTTTCAGTATGAAACAATGAATCATAAGGTAT

SYNJ1  
 SYNJ1-201

Sanger Sequencing Primer  
 GGCCTGAATTGTGATGACTG

AGCTAATCATTTATTTCTTTTCTATTAGGAATCAGTCTTTGCATTTGCATCTCAAACACTATGGCGTGAATTGTGATGACTGGT 680  
 TCGATTAGTAAATAAAGAAAAGGATAATCCTTAGTCAGAAACGTAACGTAAGTGTGATACCGCACTTAACACTACTGACCA

SYNJ1  
 SYNJ1-201

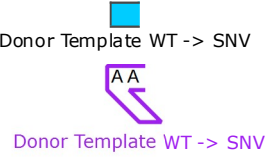
N Q S L H L H L K H Y G V N C D D W  
 165 170 175  
 ENSE0001723440  
 SYNJ1-201

TATTACGTCTTATGTGTGGAGGAGTAGAAATCAGAACAATTTATGCTGCTCATAAACAGGCCGAAGGCTTGCCTCATTTC AAGATT  
 -----  
 ATAATGCAGAATACACACCTCCTCATCTTTAGTCTTGTAAATACGACGAGTATTTGTCCGCTTCCGAACGGAGTAAAGTTCTAA

SYNJ1  
 SYNJ1-201

180 185 190 195 200 205  
 L L R L M C G G V E I R T I Y A A H K Q A K A C L I S R L

ENSE00001723440  
 SYNJ1-201



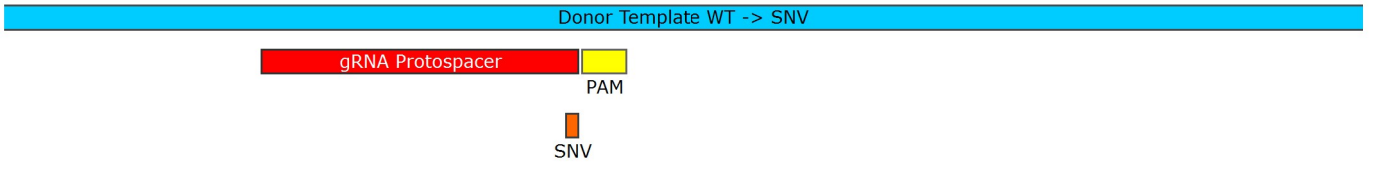
gRNA Protospacer  
 GGGACCAGGTTTAAATGTCCG

AAGCTGTGAACGAGCTGGGACCAGGTTTAAATGTCCGGGGAACAAATGATGATGGTCATGTTGCCAATTTTGTAGAAACAGAACAG  
 -----  
 TTCGACACTTGCTCGACCCTGGTCCAAATTACAGGCCCTTGTTTACTACTACCAGTACAACGGTTAAAACATCTTTGTCTTGTCT

SYNJ1  
 SYNJ1-201

210 215 220 225 230 235  
 S C E R A G T R F N V R G T N D D G H V A N F V E T E Q

ENSE00001723440  
 SYNJ1-201

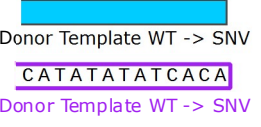


TTCGACACTTGCTCGACCCTGGTCCAAATTACAGGCCCTTGTTTACTACTACCAGTACAACGGTTAAAACATCTTTGTCTTGTCT  
 Donor Template WT -> SNV

GTATATATAGTGTTTTATATTACTTAATTAATTTATTATAGGAGAAGCACAGAAAATACTAGAATAACAGATTTTTATTTGATTC  
 -----  
 CATATATATCACAAAATATAATGAATTAATTAATAATATCCTCTTCGTGCTTTTTATGATCTTATTGTCTAAAAATAAATAAG

SYNJ1  
 SYNJ1-201

V Y I V F Y I T \*  
 ----- (in frame with SYNJ1-201) ----->



GGAGCTTATTTAACATCTATAATGTTTTATGATTGTTCTTGGTTACTTATGGGCCTTAAAAAAGGCTTCCCTAAAAAAACTT  
 -----  
 CCTCGAATAAAATTGTAGATATTACAAAATACTAACGAAGCAATGAATACCCGGAATTTTTTTCCGAAGGGATTTTTTTTTGAA

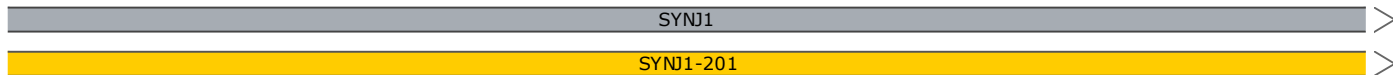
SYNJ1  
 SYNJ1-201

ATTTTGGTGTGGCTCTTCTAGGTAAGAAGATGTCACTAATCAGCATGACATAGTCAGTGTGTTGTGTTTGGTATTGAATTT  
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 TAAAACACACCGAGAAGTAGATCCATTCTTCTACAGTGATTAGTCGACTGTATCAGTCACAACACACAAAACCATAACTTAAA

SYNJ1  
 SYNJ1-201

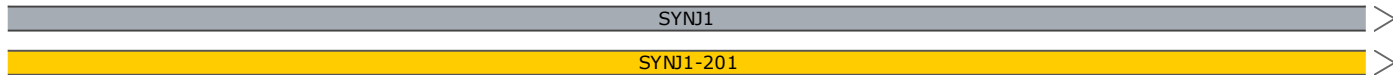
TAATGAATTTTAAAATCCTCAGCTGTAGAGTTAGACAACCTTGTTTTTTGTGAAGTGAAATTAACCCAGCTCTTAATGGCAAAT  
+ + + + +  
ATTACTTAAAATTTTAGGAGTCGACATCTCAATCTGTTGAACAAAAAACACTTCACTTTAATTTGGGTCGAGAATTACCGTTTA

1190



ATGTGTACCATCTAAAAATCAGAAATTATGATATTTTTGGCTATGAAACTATATGATTATAAATTCAGGCCATGAACCCAGCCCA  
+ + + + +  
TACACATGGTAGATTTTTAGTCTTTAATACTATAAAAACCGATACTTTGATATACTAATATTTAAGTCCGGTACTTGGGTCTGGGT

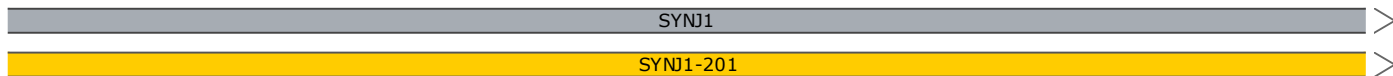
1275



GGTCTGGGT  
PCR Reverse

ACACAGATCTTCAAATTAGGTTATAAAGAGCTAAACAAAATGAAATATAAAGATATGTATGTAATAATTAAGATTTAAAAGGAA  
+ + + + +  
TGTGTCTAGAAGTTTAAATCCAATATTTCTCGATTGGTTTTACTTTATATTTCTATACATACATTTTATAATTCTAAATTTCTT

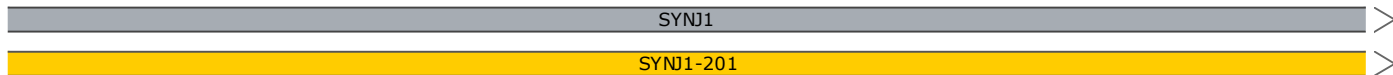
1360



TGTGTCTAGAAGTTTAA  
PCR Reverse

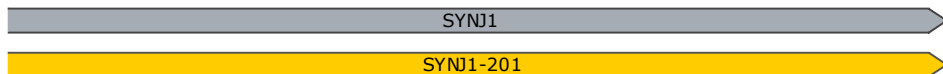
TTTATTTTTTAAAGTTGTGAATCTTATGCTTATAATTTTACTAATTTTTTTGGTTAATATCGCTAACAGAAAAAAAGTCAAACC  
+ + + + +  
AAATAAAAAATTTCAACACTTAGAATACGAATATTAATGATTAAAAAAACCAATTATAGCGATTGTCTTTTTTTTCAGTTTGG

1445



TGTATAGTGGCCTGTTTTGGACAATTGTATATGAGAGTTAGATCATAAAATGTAAGTAC  
+ + + + +  
ACATATCACCGGACAAAACCTGTTAACATATACTCTCAATCTAGTATTTTACATTGATC

3 '  
1504  
5 '



Feature	Location	Size	Start	End	Type
✓ <b>SYNJ1</b>	1 .. 1504	1504 bp	■	→	gene
/note = gene <a href="#">ENSG00000159082</a> Protein coding					
✓ <b>SYNJ1-201</b>	1 .. 1504	1504 bp	■	→	prim_transcript
/note = primary transcript <a href="#">ENST00000357345</a>					
<b>SYNJ1-202</b>	1 .. 1504	1504 bp	■	→	prim_transcript
/note = primary transcript <a href="#">ENST00000382491</a>					
<b>SYNJ1-203</b>	1 .. 1504	1504 bp	■	→	prim_transcript
/note = primary transcript <a href="#">ENST00000382499</a>					
<b>SYNJ1-205</b>	1 .. 1504	1504 bp	■	→	prim_transcript
/note = primary transcript <a href="#">ENST00000429236</a>					
<b>SYNJ1-206</b>	1 .. 1504	1504 bp	■	→	prim_transcript
/note = primary transcript <a href="#">ENST00000433931</a>					
<b>SYNJ1-211</b>	1 .. 1504	1504 bp	■	→	prim_transcript
/note = primary transcript <a href="#">ENST00000630077</a>					
<b>SYNJ1-212</b>	1 .. 1504	1504 bp	■	→	prim_transcript
/note = primary transcript <a href="#">ENST00000674204</a>					
<b>SYNJ1-213</b>	1 .. 1504	1504 bp	■	→	prim_transcript
/note = primary transcript <a href="#">ENST00000674308</a>					
<b>SYNJ1-214</b>	1 .. 1504	1504 bp	■	→	prim_transcript
/note = primary transcript <a href="#">ENST00000674351</a>					
<b>SYNJ1-208</b>	1 .. 681	681 bp	■	→	prim_transcript
/note = primary transcript <a href="#">ENST00000456084</a>					
✓ <b>SYNJ1-201</b>	625 .. 850	226 bp	■	→	CDS
/codon_start = 1					
/note = coding sequence <a href="#">ENSP00000349903</a>					
/translation = NQSLHLHLKHYGVNCDWLLRLMCGGVEIRTIYAAHKQAKACLISRLSCERAGTRFNVRGTNDDGHVANFVETEQ 75 amino acids = 8.5 kDa					
<b>SYNJ1-202</b>	625 .. 850	226 bp	■	→	CDS
/codon_start = 1					
/note = coding sequence <a href="#">ENSP00000371931</a>					
/translation = NQSLHLHLKHYGVNCDWLLRLMCGGVEIRTIYAAHKQAKACLISRLSCERAGTRFNVRGTNDDGHVANFVETEQ 75 amino acids = 8.5 kDa					
<b>SYNJ1-203</b>	625 .. 850	226 bp	■	→	CDS
/codon_start = 1					
/note = coding sequence <a href="#">ENSP00000371939</a>					
/translation = NQSLHLHLKHYGVNCDWLLRLMCGGVEIRTIYAAHKQAKACLISRLSCERAGTRFNVRGTNDDGHVANFVETEQ 75 amino acids = 8.5 kDa					
<b>SYNJ1-205</b>	625 .. 850	226 bp	■	→	CDS
/codon_start = 1					
/note = coding sequence <a href="#">ENSP00000413649</a>					
/translation = NQSLHLHLKHYGVNCDWLLRLMCGGVEIRTIYAAHKQAKACLISRLSCERAGTRFNVRGTNDDGHVANFVETEQ 75 amino acids = 8.5 kDa					
<b>SYNJ1-206</b>	625 .. 850	226 bp	■	→	CDS
/codon_start = 1					
/note = coding sequence <a href="#">ENSP00000409667</a>					
/translation = NQSLHLHLKHYGVNCDWLLRLMCGGVEIRTIYAAHKQAKACLISRLSCERAGTRFNVRGTNDDGHVANFVETEQ 75 amino acids = 8.5 kDa					
<b>SYNJ1-211</b>	625 .. 850	226 bp	■	→	CDS
/codon_start = 1					
/note = coding sequence <a href="#">ENSP00000487560</a>					
/translation = NQSLHLHLKHYGVNCDWLLRLMCGGVEIRTIYAAHKQAKACLISRLSCERAGTRFNVRGTNDDGHVANFVETEQ 75 amino acids = 8.5 kDa					

Feature	Location	Size	Start	End	Type
<b>SYNJ1-212</b>	625 .. 850	226 bp	■	→	CDS
/codon_start = 1					
/note = coding sequence <a href="#">ENSP00000501504</a>					
/translation = NQSLHLHLKHYGVNCDDWLLRLMCGGVEIRTIYAAHKQAKACLISRLSCERAGTRFNVRGTNDDGHVANFVETEQ 75 amino acids = 8.5 kDa					
<b>SYNJ1-213</b>	625 .. 850	226 bp	■	→	CDS
/codon_start = 1					
/note = coding sequence <a href="#">ENSP00000501426</a>					
/translation = NQSLHLHLKHYGVNCDDWLLRLMCGGVEIRTIYAAHKQAKACLISRLSCERAGTRFNVRGTNDDGHVANFVETEQ 75 amino acids = 8.5 kDa					
<b>SYNJ1-214</b>	625 .. 850	226 bp	■	→	CDS
/codon_start = 1					
/note = coding sequence <a href="#">ENSP00000501530</a>					
/translation = NQSLHLHLKHYGVNCDDWLLRLMCGGVEIRTIYAAHKQAKACLISRLSCERAGTRFNVRGTNDDGHVANFVETEQ 75 amino acids = 8.5 kDa					
<b>SYNJ1-208</b>	625 .. 681	57 bp	■	→	CDS
/codon_start = 1					
/note = coding sequence <a href="#">ENSP00000412707</a>					
/translation = NQSLHLHLKHYGVNCDDW 19 amino acids = 2.2 kDa					
✓ <b>Donor Template WT -&gt; SNV</b>	764 .. 863	100 bp	■		misc_feature
✓ <b>gRNA Protospacer</b>	782 .. 801	20 bp	■		misc_feature
✓ <b>SNV</b>	801 .. 801	1 bp	■		misc_feature
/note = WT = G SNV = A					
✓ <b>PAM</b>	802 .. 804	3 bp	■		misc_feature

Primer	Length	Binding Sites	Tm	Date Added
✓ <b>PCR Forward</b>  /sequence = TAAAGACATAACAGAAATGGGCCAC 40% GC / 7701.1 Da	25-mer	365 .. 389 →	57°C	Sep 15, 2023
✓ <b>Sanger Sequencing Primer</b>  /sequence = GCGTGAATTGTGATGACTG 50% GC / 6228.1 Da	20-mer	659 .. 678 →	57°C	Sep 15, 2023
✓ <b>Donor Template WT -&gt; SNV</b>  /sequence = ACACTATATACCTGTTCTGTTTCTACAAAATTGGCAACATGACCATCATCATTTGTTCCCTGGACATTAACCTGGTCCCAGCTCGTTCACAGCTTAA 40% GC / 30,529.9 Da	100-mer	764 .. 863 ←	73°C	Sep 15, 2023
✓ <b>gRNA Protospacer</b>  /sequence = GGGACCAGGTTTAATGTCCG 55% GC / 6173.1 Da	20-mer	782 .. 801 →	58°C	Sep 15, 2023
✓ <b>PCR Reverse</b>  /sequence = AATTTGAAGATCTGTGTTGGGCTGG 44% GC / 7783.1 Da	25-mer	1268 .. 1292 ←	60°C	Sep 15, 2023