

ASK2J001 78_SNCA_A30P_C01_BB
3123 bp

GGACGAGGAGCACGCTGCAGGGAAAGCAGCGAGCGCCGGGAGAGGGGCGGGCAGAAGCGCTGACAAATCAGCGGTGGGGGCGGAG НННН-H H CCTGCTCCTCGTGCGACGTCCCTTTCGTCGCTCGCGGCCCTCTCCCCGCCCGTCTTCGCGACTGTTTAGTCGCCACCCCCGCCTC

| SNCA |
| ---: |
| SNCA-201 | CGGAGGGTGAGGGGGTCGGAGCGCAGCGGCCGAGTGTCGCCGGAGGAGACCCCTGTCAGGGGGGGCCCACGGCGGAGGCGGGAAG


| SNCA |
| :--- |
| CTGTGCGCTCCTTTTCCTTCTTCTTTCCTATTAAATATTATTTGGGAATTGTTTAAATTTTTTTTTTAAAAAAAGAGAGAGGCGG |
| GACACGCGAGGAAAAGGAAGAAGAAAGGATAATTTATAATAAACCCTTAACAAATTTAAAAAAAAAATTTTTTTCTCTCTCCGCC |
| SNCA |
| SNCA-201 |

GGAGGAGTCGGAGTTGTGGAGAAGCAGAGGGACTCAGGTAAGTACCTGTGGATCTAAACGGGCGTCTTTGGAAATCCTGGAGAAC
 CСTCCTCAGCCTCAACACCTCTTCGTCTCCCTGAGTCCATTCATGGACACCTAGATTTGCCCGCAGAAACCTTTAGGACCTCTTG
GCCGGATGGGAGACGAATGGTCGTGGGCACCGGGAGGGGGTGGTGCTGCCATGAGGACCCGCTGGGCCAGGTCTCTGGGAGGTGA

CACATAAAATCTGTCTGCCCGCTCTCTTGGTTTTTCTCTGTAAAGTAAGCAAGCTGCGTTTGGCAAATAATGAAATGGAAGTGCA
 GTGTATTTTAGACAGACGGGCGAGAGAACCAAAAAGAGACATTTCATTCGTTCGACGCAAACCGTTTATTACTTTACCTTCACGT

| $\square$ |
| ---: |
| SNCA |
| SNCA-201 |

AGGAGGCCAAGTCAACAGGTGGTAACGGGTTAACAAGTGCTGGCGCGGGGTCCGCTAGGGTGGAGGCTGAGAACGCCCCCTCGGG
 TCCTCCGGTTCAGTTGTCCACCATTGCCCAATTGTTCACGACCGCGCCCCAGGCGATCCCACCTCCGACTCTTGCGGGGGAGCCC

| $\square$ SNCA |
| ---: |
| SNCA-201 |

TGGCTGGCGCGGGGTTGGAGACGGCCCGCGAGTGTGAGCGGCGCCTGCTCAGGGTAGATAGCTGAGGGCGGGGGTGGATGTTGGA بम+ ACCGACCGCGCCCCAACCTCTGCCGGGCGCTCACACTCGCCGCGGACGAGTCCCATCTATCGACTCCCGCCCCCACCTACAACCT

| SNCA |
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| SNCA-201 |

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& i>
\end{aligned}
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TGGATTAGAACCATCACACTTGGGCCTGCTGTTTGCCTGAGTTTGAACCACACCCCGAGTGAGCAGTTAGTTCTGTTGCCTACGC H-بН ACCTAATCTTGGTAGTGTGAACCCGGACGACAAACGGACTCAAACTTGGTGTGGGGCTCACTCGTCAATCAAGACAACGGATGCG

| SNCA |
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| SNCA-201 |

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SNCA-201

СTTTCCACCATCAACCTGTTAGCCTTCTTCTGGGATTCATGTTAAGGATACCCCTGACCCTAAGCCTCCAGCTTCCATGCTTCTA
 GAAAGGTGGTAGTTGGACAATCGGAAGAAGACCCTAAGTACAATTCCTATGGGGACTGGGATTCGGAGGTCGAAGGTACGAAGAT

| $\square$ SNCA |
| ---: |
| SNCA-201 |



ACTCATACTGTTACCCTTTAGACCCCGGGAATTTAAAAAAGGGGTTAATCTTTTCATGCAACTCCACTTCTGAAATGCAGTAATA
 TGAGTATGACAATGGGAAATCTGGGGCCCTTAAATTTTTTCCCCAATTAGAAAAGTACGTTGAGGTGAAGACTTTACGTCATTAT

| SNCA |
| ---: |
| SNCA-201 |

ACAACTCAGAGGATTCATCCTAATCCGTGGTTAGGTGGCTAGACTTTTACTAGCCAAGATGGATGGGAGATGCTAAATTTTTAAT Hبнبн TGTTGAGTCTCCTAAGTAGGATTAGGCACCAATCCACCGATCTGAAAATGATCGGTTCTACCTACCCTCTACGATTTAAAAATTA


GCCAGAGCTAAAAATGTCTGCTTTGTCCAATGGTTAAATGAGTGTACACTTAAAAGAGTCTCACACTTTGGAGGGTTTCTCATGA
 CGGTCTCGATTTTTACAGACGAAACAGGTTACCAATTTACTCACATGTGAATTTTCTCAGAGTGTGAAACCTCCCAAAGAGTACT

| SNCA |
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| SNCA-201 |

TTTTTCAGTGTTTTTTGTTTATTTTTCCCCGAAAGTTCTCATTCAAAGTGTATTTTATGTTTTCCAGTGTGGTGTAAAGGAATTC ب+ ب $+\boldsymbol{+}$
AAAAAGTCACAAAAAACAAATAAAAAGGGGCTTTCAAGAGTAAGTTTCACATAAAATACAAAAGGTCACACCACATTTCCTTAAG


ATTAGCCATGGATGTATTCATGAAAGGACTTTCAAAGGCCAAGGAGGGAGTTGTGGCTGCTGCTGAGAAAACCAAACAGGGTGTG بНН
TAATCGGTACCTACATAAGTACTTTCCTGAAAGTTTCCGGTTCCTCCCTCAACACCGACGACGACTCTTTTGGTTTGTCCCACAC

| SNCA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| SNCA-201 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 |  |  |  | 5 |  |  |  |  | 10 |  |  |  |  | 15 | , |  |  | , | 20 |  |  |  |  | 25 |  |
| M | D | V | F | M | K | G | L | S | K | A | K | E | G | V | V | A | A | A | E | K | T | K | Q | G | V |
| ENSE00001407446 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## gRNA Protospacer <br> AGCAGCAGGAAAGACAAAAG

GCAGAAGCAGCAGGAAAGACAAAAGAGGGTGTTCTCTATGTAGGTAGGTAAACCCCAAATGTCAGTTTGGTGCTTGTTCATGAGT

CGTCTTCGTCGTCCTTTCTGTTTTCTCCCACAAGAGATACATCCATCCATTTGGGGTTTACAGTCAAACCACGAACAAGTACTCA


## CGTCTTCGTGGCCTTTCTGTTTTCTCCCACAAGAGATACATCCatccatttggggtttacagtcaaccacgaacaagtactca

Donor Template WT -> SNV

GATGGGTTAGGATAATCAATACTCTAAATGCTGGTAGTTCTCTCTCTTGATTCATTTTTGCATCATTGCTTGTCAAAAAGGTGGA Н-Н Н- ب-
CTACCCAATCCTATTAGTTATGAGATTTACGACCATCAAGAGAGAGAACTAAGTAAAAACGTAGTAACGAACAGTTTTTCCACCT


CTGAGTCAGAGGTATGTGTAGGTAGGTGAATGTGAACGTGTGTATTTGAGCTAATAGTAAAAAATGCGACTGTTTGCTTTTCCAG

GACTCAGTCTCCATACACATCCATCCACTTACACTTGCACACATAAACTCGATTATCATTTTTTACGCTGACAAACGAAAAGGTC

| SNCA |
| ---: |
| SNCA-201 |

ATTTTTAATTTTGCCCTAATATTTATGACTTTTTAAAAATGAATGTTTCTGTACCTACATAATTCTATTTCAGAGAACAGTTTTA
 TAAAAATTAAAACGGGATTATAAATACTGAAAAATTTTTACTTACAAAGACATGGATGTATTAAGATAAAGTCTCTTGTCAAAAT

| $\square$ SNCA |
| :--- |
| SNCA-201 |

[^0]GAAAAATGTTTGTCAATTTTAATCCATTCTGATTTTTAAAATATGACTTTGATATGCCCCTGTGATGTGTATAAAGAGACCTATT
 СТTTTTACAAACAGTTAAAATTAGGTAAGACTAAAAATTTTATACTGAAACTATACGGGGACACTACACATATTTCTCTGGATAA

| SNCA |
| ---: |
| SNCA-201 |



AGAAATTGATGCTTATTACCTACTTGTTCCTAAAGTTCCACCTTGGGGTATACACCCAAACTCTGACTCTCTTTTCTGTAACTTG
 TCTTTAACTACGAATAATGGATGAACAAGGATTTCAAGGTGGAACCCCATATGTGGGTTTGAGACTGAGAGAAAAGACATTGAAC

| SNCA |
| ---: |
| SNCA-201 |

AACTGTATTCAATTGAGTGTTATTTTACAAACCACTTTGAATTCCTTGGAAAAGAATAGACACACACTCTCATCCACAGGCATAG
 TTGACATAAGTTAACTCACAATAAAATGTTTGGTGAAACTTAAGGAACCTTTTCTTATCTGTGTGTGAGAGTAGGTGTCCGTATC

| SNCA |
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| SNCA-201 |

aCACACACACTCAACACAGACACATTGCCCATTCTTCCTCTCTTCTTTCTCCTCTGAGCTTTTTCACATTCTCTGGTGGCAACTA + + + + $+\boldsymbol{+} \boldsymbol{+}$ TGTGTGTGTGAGTTGTGTCTGTGTAACGGGTAAGAAGGAGAGAAGAAAGAGGAGACTCGAAAAAGTGTAAGAGACCACCGTTGAT

| SNCA |
| ---: |
| SNCA-201 |

TAGCAGTAAGAGTCACAGGATGAACAGTCAGGTGGAGGATGACCACATTGAGTTGCCTAGCTGAAACATGTGCTCCGTCTATGTC
 ATCGTCATTCTCAGTGTCCTACTTGTCAGTCCACCTCCTACTGGTGTAACTCAACGGATCGACTTTGTACACGAGGCAGATACAG

| SNCA |
| ---: |
| SNCA-201 |

TGCAAAGTGAAAGAAAGCTACACTATCTCTTCAACATAGATCAGTGGGGGAAATTTTATACTTGGGATGATTTATATGAATGCAT +-Н-بACGTTTCACTTTCTTTCGATGTGATAGAGAAGTTGTATCTAGTCACCCCCTTTAAAATATGAACCCTACTAAATATACTTACGTA

| SNCA |
| ---: |
| SNCA-201 |

CTCATCAAAGTTCACAACACATTTTTTTTTCAGTTTTTTATTTTCAGTTTTTAGAGTCAGGGCCTTGCTCTGTCGCCCAGGCTGG HبGAGTAGTTTCAAGTGTTGTGTAAAAAAAAAGTCAAAAAATAAAAGTCAAAAATCTCAGTCCCGGAACGAGACAGCGGGTCCGACC

| SNCA |
| ---: |
| SNCA-201 |

GATTATAGGCATGTGCCACTGCCTCATTATTTAGACTTTTCTTATGTTGACTTAATCTTCCCACAAATCTTCAATTAAATTACTT بнН CTAATATCCGTACACGGTGACGGAGTAATAAATCTGAAAAGAATACAACTGAATTAGAAGGGTGTTTAGAAGTTAATTTAATGAA SNCA

## SNCA-201

TTTTTCTACCTTAAAACATATTTTCAGAAAGTCATTGAAATAGGGTGTTACAAGAGGAAAAAA
 AAAAAGATGGAATTTTGTATAAAAGTCTTTCAGTAACTTTATCCCACAATGTTCTCCTTTTTT SNCA

3'
3123
$5^{\prime}$
\#
Type
SNCA

/note $\quad=\quad$| gene ENSG00000145335 |
| :--- |
| Protein coding |

SNCA-201
/note $=$ primary transcript ENST00000336904
SNCA-216
/note $=$ primary transcript ENST00000673902

## SNCA-217

/note $=$ primary transcript ENST00000674129
$\begin{array}{ll}\text { SNCA-204 } \\ \text { /note } & =\text { primary transcript ENST00000394989 }\end{array}$


SNCA-205
/note $=$ primary transcript ENST00000394991
SNCA-203
/note $=$ primary transcript ENST00000394986

SNCA-210
/note $=$ primary transcript ENST00000506691
$\begin{array}{ll}\text { SNCA-214 } \\ \text { /note }= & \text { primary transcript ENST00000673718 }\end{array}$
SNCA-206
/note $=$ primary transcript ENST00000420646
SNCA-211
/note $=$ primary transcript ENST00000508895
SNCA-213
/note $=$ primary transcript ENST00000618500
SNCA-AS1-201
/note $=\underset{\text { primary transcript ENST00000501215 }}{\text { IncRNA }}$
SNCA-207
/note $=$ primary transcript ENST000000502987
SNCA-208
/note $=$ primary transcript ENST00000505199
SNCA-202
/note $=$ primary transcript ENST00000345009
SNCA-212
/note $=$ primary transcript ENST00000611107

SNCA-201
/note $\quad=$ coding sequence ENSPO0000338345
/translation $=$ MDVFMKGLSKAKEGVVAAAEKTKQGVAEAAGKTKEGVLYV 40 amino acids $=4.1 \mathrm{kDa}$

SNCA-202 1623 .. $1743 \quad 121 \mathrm{bp} \quad \square \quad \longrightarrow \quad$ CDS
/note $\quad=$ coding sequence ENSP00000343683
/translation $=$ MDVFMKGLSKAKEGVVAAAEKTKQGVAEAAGKTKEGVLYV 40 amino acids $=4.1 \mathrm{kDa}$
SNCA-203
/note $\quad=$ coding sequence ENSP00000378437
/translation $=$ MDVFMKGLSKAKEGVVAAAEKTKQGVAEAAGKTKEGVLYV 40 amino acids $=4.1 \mathrm{kDa}$

## SNCA-204

$$
1623 \text {.. } 1743
$$

121 bp
$\square \quad \rightarrow \mathrm{CDS}$
/note $\quad=$ coding sequence ENSPO0000378440
/translation $=$ MDVFMKGLSKAKEGVVAAAEKTKQGVAEAAGKTKEGVLYV 40 amino acids $=4.1 \mathrm{kDa}$

| /note $=$ | coding sequence ENSP00000378442 |
| ---: | :--- |
| /translation $=$ | MDVFMKGLSKAKEGVVAAAEKTKQGVAEAAGKTKEGVLYV |
|  | 40 amino acids $=4.1 \mathrm{kDa}$ |


/note $=$ coding sequence ENSP00000396241

| /translation $=$ | MDVFMKGLSKAKEGVVAAAEKTKQGVAEAAGKTKEGVLYV |
| ---: | :--- |
|  | 40 amino acids $=4.1 \mathrm{kDa}$ |

SNCA-207
1623 .. 1743
/note $\quad=$ coding sequence ENSP00000426034
/translation $=$ MDVFMKGLSKAKEGVVAAAEKTKQGVAEAAGKTKEGVLYV 40 amino acids $=4.1 \mathrm{kDa}$

## SNCA- 208

/note $=$ coding sequence ENSP00000421485
/translation $=$ MDVFMKGLSKAKEGVVAAAEKTKQGVAEAAGKTKEGVLYV 40 amino acids $=4.1 \mathrm{kDa}$

SNCA-209 1623 .. 1743

121 bp $\square \quad \rightarrow$ CDS
/note $=$ coding sequence ENSP00000422238
/translation $=$ MDVFMKGLSKAKEGVVAAAEKTKQGVAEAAGKTKEGVLYV 40 amino acids $=4.1 \mathrm{kDa}$

/note $=$ coding sequence ENSP00000501269
/translation $=$ MDVFMKGLSKAKEGVVAAAEKTKQGVAEAAGKTKEGVLYV 40 amino acids $=4.1 \mathrm{kDa}$


SNCA-AS1-202
1688 ..

/note $\quad=$ primary transcript ENST00000513653 IncRNA
2636 .. $882 \quad 1370 \mathrm{bp} \quad \square$ prim_transcript

Location $\quad$ Size $\quad$ Type
$3124292,508 \quad 289,385 \mathrm{bp} \quad \square \quad \longleftarrow$ gene

| /note | $\begin{aligned} & =\begin{array}{l} \text { gene ENSG00000251095 } \\ \text { IncRNA } \end{array} \end{aligned}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 3124 | 292,508 | 289,385 bp | $\square$ | $\leftarrow$ | prim_transcript |
| /note | $\begin{aligned} & =\begin{array}{l} \text { primary transcript ENST00000659878 } \\ \text { IncRNA } \end{array} \end{aligned}$ |  |  |  |  |  |  |
|  |  | 3124 | 152,078 | $148,955 \mathrm{bp}$ | $\square$ | 4 | prim_transcript |
| /note | $\begin{aligned} & =\begin{array}{l} \text { primary transcript ENST00000508021 } \\ \text { IncRNA } \end{array} \end{aligned}$ |  |  |  |  |  |  |
|  |  | 3124 | 120,961 | 117,838 bp | $\square$ | $\rightarrow$ | gene |
| /note | $\begin{aligned} & =\text { gene ENSG00000288563 } \\ & \text { IncRNA } \end{aligned}$ |  |  |  |  |  |  |
|  |  | 3124 | 120,961 | 117,838 bp | $\square$ | $\rightarrow$ | prim_transcript |
| /note | $\begin{aligned} & =\begin{array}{l} \text { primary transcript ENST00000673949 } \\ \text { IncRNA } \end{array} \end{aligned}$ |  |  |  |  |  |  |
|  |  | 3124 | . 75,684 | 72,561 bp | $\square$ | - | prim_transcript |
| /note | $\begin{aligned} & =\begin{array}{l} \text { primary transcript ENST00000507916 } \\ \text { IncRNA } \end{array} \end{aligned}$ |  |  |  |  |  |  |
|  |  | 3124 | .21,963 | 18,840 bp | $\square$ | 4 | prim_transcript |
| /note | $\begin{aligned} & =\begin{array}{l} \text { primary transcript ENST00000689416 } \\ \text { IncRNA } \end{array} \end{aligned}$ |  |  |  |  |  |  |
|  |  | 3124 | .21,963 | 18,840 bp | $\square$ | $\leftarrow$ | prim_transcript |
| /note | $\begin{aligned} & =\begin{array}{l} \text { primary transcript ENST00000691837 } \\ \text { IncRNA } \end{array} \end{aligned}$ |  |  |  |  |  |  |


|  | Primer | Length | 0 | Binding Sites | $\rightleftharpoons$ | Tm | Date Added |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\checkmark$ | PCR Forward | 25-mer |  | 1323 .. 1347 | $\rightarrow$ | $58^{\circ} \mathrm{C}$ | Apr 24, 2023 |
|  | $\begin{aligned} \text { /sequence }= & \text { atcttttcatgcaactccacttctg } \\ & 40 \% \mathrm{GC} / 7518.0 \mathrm{Da} \end{aligned}$ |  |  |  |  |  |  |
| $\checkmark$ | Sanger Sequencing Primer | 20-mer |  | 1507 .. 1526 | $\cdots$ | $56^{\circ} \mathrm{C}$ | Apr 24, 2023 |
|  | $\begin{aligned} \text { /sequence }= & \text { cacactttggagggtttctc } \\ & 50 \% \mathrm{GC} / 6099.0 \mathrm{Da} \end{aligned}$ |  |  |  |  |  |  |
| $\checkmark$ | Donor Template WT ->SNV | 100-mer |  | 1688 .. 1787 | - | $75^{\circ} \mathrm{C}$ | Apr 24, 2023 |
|  | $\begin{aligned} \text { /sequence } \quad= & \text { tcactcatgaacaagcaccaaactg } \\ & 46 \% \mathrm{GC} / 30,514.8 \mathrm{Da} \end{aligned}$ | gggtttac |  | ACATAGAGAACAC |  | TTTGT | TTTCCTGGTGCTTCTGCCACACCCTGTTTG |
| $\checkmark$ | gRNA Protospacer | 20-mer |  | 1706 .. 1725 | $\rightarrow$ | $56^{\circ} \mathrm{C}$ | Apr 24, 2023 |
|  | $\begin{aligned} \text { /sequence }= & \text { AGCAGCAGGAAAGACAAAAG } \\ & 45 \% \mathrm{GC} / 6226.2 \mathrm{Da} \end{aligned}$ |  |  |  |  |  |  |
| $\checkmark$ | PCR Reverse | 25-mer |  | 2201 .. 2225 | - | $57^{\circ} \mathrm{C}$ | Apr 24, 2023 |
|  | $\begin{aligned} \text { /sequence }= & \text { cattttagggccacaaataggtctc } \\ & 44 \% \mathrm{GC} / 7641.0 \mathrm{Da} \end{aligned}$ |  |  |  |  |  |  |


[^0]:    AAAACTCATAGTCTTTTAAAAAATAATCAAGAATATTCTTAAGAATCAAAATCATTGATGGATCTGTGATTTCTTTTACCATCAT
     TTTTGAGTATCAGAAAATTTTTTATTAGTTCTTATAAGAATTCTTAGTTTTAGTAACTACCTAGACACTAAAGAAAATGGTAGTA

    | SNCA |
    | ---: |
    | SNCA-201 |

