

INK2S00119R_APP_V717I_A03_AA 6468 bp

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| APP |
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| APP-201 |

GCTACTCGGGAGGCTGAGGCAAGAGAATCTCTTGATCCCAGGAGGCAGAGGTTGCAGTGAGCCGAGATCGCACTCCAGCCTGGGC

CGATGAGCCCTCCGACTCCGTTCTCTTAGAGAACTAGGGTCCTCCGTCTCCAACGTCACTCGGCTCTAGCGTGAGGTCGGACCCG

| APP |
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| APP-201 |

AACAAGAGCAAGACTCTGTCTCAAAAAAAAAAAAAAGTTTGTATTTACACTATACTCTAGTCTGTTACATGTGCAATAGCATTAT世H+HبН ب TTGTTCTCGTTCTGAGACAGAGTTTTTTTTTTTTTTCAAACATAAATGTGATATGAGATCAGACAATGTACACGTTATCGTAATA

| APP |
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| APP-201 |

GTCTAAAAAAAAAAAAAGCCATGTATATACTTTACTTTTATTAGTAAAATATTTTATTACTAAAAATGCTAATGATCATCTGAGT
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APP
APP-201

CTTCAGCAAGTCCTAATCTTTTTGCTCGTGGAGAATCTTGCCTTGATGTTCACTGCTGCAGGCTAATCCAGGTGGTGGCTGCTGA

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| APP |
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GGTTTGTGGTGGCTGTGGCAATTTCCTAAAATAAGACAATAATGAAGTTTGCTGCATCGATTGACTCTTCCTTTCACAAAAAGAT
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GCCACTGCTTCATCGAGTTTATGTGATATCCTAAATCCTTTGTTGTCATTTCAACAGTGTTCATAGCATCTTCACCAAGAGTAGA


TTCCATTGCAAGAAACCACTTTCTTTGCTCATCCATAAGAGGTAACTCCTCATCCATTCAAGTTTGATCATGAGATGGTAGCAGT + $+\boldsymbol{+}+\boldsymbol{+} \boldsymbol{+}$ AAGGTAACGTTCTTTGGTGAAAGAAACGAGTAGGTATTCTCCATTGAGGAGTAGGTAAGTTCAAACTAGTACTCTACCATCGTCA


TGAACTCCTCAAAGTCACCCATGAGAGTTGGAATCATTGTCTTCCAAACTCCCGTTATTGCTGATGTTTTGATCTCCCATGGATC ب甲+ ACTTGAGGAGTTTCAGTGGGTACTCTCAACCTTAGTAACAGAAGGTTTGAGGGCAATAACGACTACAAAACTAGAGGGTACCTAG

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| APP-201 |

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| APP-201 |

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| APP-201 |

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| APP |
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| APP-201 |

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| APP |
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| APP-201 |

ATTCTTAAGCGCCCTAGGACTTTTACAATGGTCAGTCTTGGCTTCAAAAACAAAGTCGCCAGCTGCATTAGCCCCTAACAAGAGA
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| APP |
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| APP-201 |

[^0]TTTCATCTCCACTGAAAATCTGTTATTTAGTGTAGCCACCTTCATCAGGAGTCTTATCTAGATCTTCTGGATAACTTATTGCAGC
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| APP-201 |
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| TTCTACATCAGCACTTGCTGCTTCACCTTGCACTTCTGTGTTATGGAGATGGCTTCTTCCCTTAAACCTCATGAAATCAACCTCT |
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 GGGTTGAAAAAAAAGAAGACGTCGAAGAAGTGGAGAGAGTAGGAAGTATCTTAACTTCTGTCAACACCCGGAACAAGAACTAATC $\begin{array}{r}\text { APP } \\ \hline \text { APP-201 } \\ \hline\end{array}$ GCTTTGGCCTAAGAGAATGTTGTGGTTGGTTTGATCTTCCATCCAGACAACTAAAAGTTTTCTCCGTATCAGCAATAAGGCTGTT
 CGAAACCGGATTCTCTTACAACACCAACCAAACTAGAAGGTAGGTCTGTTGATTTTCAAAAGAGGCATAGTCGTTATTCCGACAA

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| APP-201 |

TTGCTTTATCATTTGTGTGCTCACTGGAGTAGCACTTTTAATCTCCTTCAAGAGCTTTTCTTTGCATTCACAACTTGGCTAACTG
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$$
\begin{gathered}
\text { ATGGGCATGTTTCATGACACTCCAAAACAATTAAAATAGTAACATCAAAGGCCACTGATCACAGATCACCAAACAGATATAATAA } \\
\text { TACCCGTACAAAGTACTGTGAGGTTTTGTTAATTTTATCATTGTAGTTTCCGGTGACTAGTGTCTAGTGGTTTGTCTATATTATT } \\
\hline \text { APP } \\
\hline
\end{gathered}
$$

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| APP |
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| APP-201 |

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APP-201

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| APP |
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| APP-201 |

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 GAATTTTAAGAACAACGGACATGAAGTGAAACTTTATTGTAATACGAAATTTTTCGTAATGTGACGATTTCCAATTAATCTTAAG


APP-201

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| APP-201 |

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| APP-201 |

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| APP-201 |

GCTATCTTCCCACCACTCACCAAATGTTCCACCTGTCAAAGGGTTTCAGGTCCCTGCAGACTTCGGTTTTGACCTGTGGGGAAAG



| Sanger Sequencing |
| :--- |
| CAACCAGTTGGGCAGAGAAT |
| PAACCA Reverse |

TCTTTTTTTTTTTTTTTTTTTAAAGTAAGCATCAAATATTTGACCAACCAGTTGGGCAGAGAATATACTGAAACTTTTTATATAA
 AGAAAAAAAAAAAAAAAAAAATTTCATTCGTAGTTTATAAACTGGTTGGTCAACCCGTCTCTTATATGACTTTGAAAAATATATT


CCTCATCCAAATGTCCCCTGCATTTAAGAAATGAAATTCTTCTAATTGCGTTTATAAATTGTAAATTATATTGCATTTAGAAATT H-HHH-HHHHH GGAGTAGGTTTACAGGGGACGTAAATTCTTTACTTTAAGAAGATTAACGCAAATATTTAACATTTAATATAACGTAAATCTTTAA

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AAAATTCTTTTTCTTAATTTGTTTTCAAGGTGTTCTTTGCAGAAGATGTGGGTTCAAACAAAGGTGCAATCATTGGACTCATGGT +H H + H TTTTAAGAAAAAGAATTAAACAAAAGTTCCACAAGAAACGTCTTCTACACCCAAGTTTGTTTCCACGTTAGTAACCTGAGTACCA



GGGCGGTGTTGTCATAGCGACAGTGATCGTCATCACCTTGGTGATGCTGAAGAAGAAACAGTACACATCCATTCATCATGGTGTG HبН CCCGCCACAACAGTATCGCTGTCACTAGCAGTAGTGGAACCACTACGACTTCTTCTTTGTCATGTGTAGGTAAGTAGTACCACAC



GCTAAGTATCTCTTTTAAAAAACGAATCAGTGTGCTTCCATGATGCTTGGGTTACAGTTGTTCTTTCTTGTTTTGGTTTTCATTC
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| APP-201 |

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| APP-201 | GGAAATCACACTATACCAAATGGCCCACCAAAACATACATGATTGTTATTTGAGAGTTCTGCAACCTATTACCCTGCACTTCCAC

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 GACTTTATAGAATCAAAGTTCCACGATATGATTTTGTTCTTTCTCTCTTTCTTTTAAATGCTTATTCAATAAAAATACGTAAACT

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AATGCCATTTGGATGGGGGAAAAAGTGTTAAAATCTCACAGTATATGCAACTTTTTAGGAAACTGTCTTGCAGAGAGTATAGTGT ННН TTACGGTAAACCTACCCCCTTTTTCACAATTTTAGAGTGTCATATACGTTGAAAAATCCTTTGACAGAACGTCTCTCATATCACA $\begin{array}{r}\hline \text { APP } \\ \hline \text { APP-201 } \\ \hline\end{array}$ AAACATAACTTTTATATGCACAGGGAAACTGAAAAATTTGTGTGACATTTAATTGCGATATTTTAAGAGTTATGGAATTTTTAGA
 TTTGTATTGAAAATATACGTGTCCCTTTGACTTTTTAAACACACTGTAAATTAACGCTATAAAATTCTCAATACCTTAAAAATCT


GCTGAAAGATTTATTGATGATGACCAATCAAATTGATCTTCTCATCTTGTAGATGAGGGAACTGAGGCCGAGACAGAAGGGTTCA

CGACTTTCTAAATAACTACTACTGGTTAGTTTAACTAGAAGAGTAGAACATCTACTCCCTTGACTCCGGCTCTGTCTTCCCAAGT

| APP |
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| APP-201 |

AATTATGCAAGGTCAAGCTCAGAGTCCAGATTTCCCCTCATATTCCCCATTGCTTTTTTTTTTTTTTTTTGAGACAGTCTCGCGC
 TTAATACGTTCCAGTTCGAGTCTCAGGTCTAAAGGGGAGTATAAGGGGTAACGAAAAAAAAAAAAAAAAACTCTGTCAGAGCGCG

| APP |
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| APP-201 |

TGTTGCCCAGGCTGGATCTTGGCTCACTGCAACCTCTGCCTCCTGGGTTCAAGCAATTCTCTTGTCTCAGCTTCCTGAGTAGCTG بНН H ACAACGGGTCCGACCTAGAACCGAGTGACGTTGGAGACGGAGGACCCAAGTTCGTTAAGAGAACAGAGTCGAAGGACTCATCGAC

| APP |
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| APP-201 |

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| APP |
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| APP-201 |

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TGATTAGAAGAGGACAGGCAGAGTTTAAATAAATGAAATTTGTGGTGAAGCCAGAAATTTCATTTTGCTCAGCAATTAAAACCTC بН ب ب ب ACTAATCTTCTCCTGTCCGTCTCAAATTTATTTACTTTAAACACCACTTCGGTCTTTAAAGTAAAACGAGTCGTTAATTTTGGAG

| APP |
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| APP-201 |

TGCAGACTACAACAGAAGCTGCTGATGGAAATTGGGGTGGAGCCTCATTTCCCCATTCATACTGACGTGGATGAGCAGTGTGAGG


agtatcagcttatttcatttctgctcanattantttttanananatttanttccatatttgagcanatanagatgtcttcatact +ب+ $\boldsymbol{+} \boldsymbol{+}$
tCATAGTCGAATAAAGTAAAGACGAGTTTAATTAAAAATTTTTTTAAATTAAGGTATAAACTCGTTTATTTCTACAGAAGTATGA

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 ACTCATTAAGTTCTGGGGAAAAAACGACGACAACAACAAAACCAAAAAAAGTACCAAAACAACAAAAGAAAACAACAACAACAAA

| APP |
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| APP-201 |

ctttgttttttgagatg gagtcttgctctttcacccaggctggagtgcagtggcatgatctccgctcactgcaacctccacctcc +H- بH-H+H-H gaAACAAAAAACTCTACCTCAGAACGAGAAAGTGGGTCCGACCTCACGTCACCGTACtAGAGGCGAGTGACGTtGGAGGTGGAGG

| APP |
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CAGGTtCAAGCGATtCTCCTACCTCACTCTCAGCCTCCTGAGTAACTGGGATtACAGGGGCATACCACCACGCCTGGCTAATtTT
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tgtatttttagtagagacagg gttttgccatgttgaccaggctgatcttganttcctgacctcangtgatccgccctccccancc

ACATAAAAATCATCTCTGTCCCAAAACGGTACAACCGGTCCGACCAGAACTTAAGGACCGGAGTTCACTAGGCGGGAGGGGTTGG

| APP |
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| APP-201 |

tcccang tgctgggattacaggcatgagccaccatgcctggccttcangagcactttttagtttatttantatanttctctttg



| APP |
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| APP-201 |

ttgccgatctgtccgttgangttgccttctttgatgccagaggccaiagacttggcttcctcgagcttccatancanagtancac + + Н Н + $+\boldsymbol{+}$ AACGGCCAGACAGGCAACtTCAACGGAAGAAACTACGGTCTCCGGTtTCTGAACCGAAGGAGCCCGAAGGTATtGTtTCATtGTG

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tgcanatacagtcacaggtggaggtactggcagcttaggacttcancatatganttctaggaggacacgttttagcccgtancag
 acgtttatgtcagtgtccacctccatgaccgtcgantcctgangttgtatacttangatccccctgtgcaanatcgggcattgtc

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ACCCCAGT
+ННН+Н
TGGGGTCA
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| eatu |  |  | Location | Siz | - | 7 | Type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| APP |  |  | 1 .. 6468 | 6468 bp | 口 | $\rightarrow$ | gene |
| /note | $\begin{aligned} = & \text { gene ENSG00000142192 } \\ & \text { Protein coding } \end{aligned}$ |  |  |  |  |  |  |
| APP-DT |  |  | 1 .. 6468 | 6468 bp | $\square$ | $\leftarrow$ | gene |
| /note | $\begin{aligned} = & \text { gene ENSGO0000273492 } \\ & \text { IncRNA } \end{aligned}$ |  |  |  |  |  |  |
| APP-201 |  |  | 1 .. 6468 | 6468 bp | $\square$ | $\rightarrow$ | prim_transcript |
| /note | $=$ primary transcript ENST00000346798 |  |  |  |  |  |  |
| APP-202 |  |  | 1 .. 6468 | 6468 bp | $\square$ | $\rightarrow$ | prim_transcript |
| /note | = primary transcript ENST00000348990 |  |  |  |  |  |  |
| APP-203 |  |  | 1 .. 6468 | 6468 bp | ㅁ | $\rightarrow$ | prim_transcript |
| /note | $=$ primary transcript ENST00000354192 |  |  |  |  |  |  |
| APP-204 |  |  | 1 .. 6468 | 6468 bp | $\square$ | $\rightarrow$ | prim_transcript |
| /note | $=$ primary transcript ENST00000357903 |  |  |  |  |  |  |
| APP-205 |  |  | 1 .. 6468 | 6468 bp | 口 | $\rightarrow$ | prim_transcript |
| /note | $=$ primary transcript ENST00000358918 |  |  |  |  |  |  |
| APP-206 |  |  | 1 .. 6468 | 6468 bp | $\square$ | $\rightarrow$ | prim_transcript |
| /note | = primary transcript ENST00000359726 |  |  |  |  |  |  |
| APP-208 |  |  | 1 .. 6468 | 6468 bp | $\square$ | $\rightarrow$ | prim_transcript |
| /note | $=$ primary transcript ENST00000439274 |  |  |  |  |  |  |
| APP-209 |  |  | 1 .. 6468 | 6468 bp | $\square$ | $\rightarrow$ | prim_transcript |
| /note | $=$ primary transcript ENST00000440126 |  |  |  |  |  |  |
| APP-213 |  |  | 1 .. 6468 | 6468 bp | $\square$ | $\rightarrow$ | prim_transcript |
| /note | $\begin{aligned} = & \text { primary transcript ENST000000464867 } \\ & \text { Retained intron } \end{aligned}$ |  |  |  |  |  |  |
| APP-DT-201 |  |  | 1 .. 6468 | 6468 bp | $\square$ | * | prim_transcript |
| /note | $\begin{aligned} = & \text { primary transcript ENST000000608591 } \\ & \text { IncRNA } \end{aligned}$ |  |  |  |  |  |  |
| APP-DT-202 |  |  | 1 .. 6468 | 6468 bp | $\square$ | $\leftarrow$ | prim_transcript |
| /note | $\begin{aligned} = & \text { primary transcript ENST000000609365 } \\ & \text { IncRNA } \end{aligned}$ |  |  |  |  |  |  |
| APP-DT-203 |  |  | 1 .. 6468 | 6468 bp | ㅁ | + | prim_transcript |
| /note | $\begin{aligned} = & \text { primary transcript ENST000000664668 } \\ & \text { IncRNA } \end{aligned}$ |  |  |  |  |  |  |
| APP-201 |  | 3685 | 5 .. 3831 | 147 bp | $\square$ | $\rightarrow$ | CDS |
| /note | $=$ coding sequence ENSP00000284981 |  |  |  |  |  |  |
| /translation | $\begin{aligned} = & \text { VFFAEDVGSNKGAIIGLMV GGVVIATVI } \\ & 49 \text { amino acids }=5.2 \mathrm{kDa} \end{aligned}$ |  | LV M LKKK | TSIHHGV |  |  |  |
| APP-202 |  | 3685 | 5 .. 3831 | 147 bp | $\square$ | $\rightarrow$ | CDS |
| /note | $=$ coding sequence ENSP00000345463 |  |  |  |  |  |  |
| /translation | $\begin{aligned} = & \text { VFFAEDVGSNKGAIIGLMVGGVVIATVI } \\ & 49 \text { amino acids }=5.2 \mathrm{kDa} \end{aligned}$ |  | LV M LKKK | TSIHHGV |  |  |  |
| APP-203 |  | 3685 | 5 .. 3831 | 147 bp | $\square$ | $\rightarrow$ | CDS |
| /note | $=$ coding sequence ENSP00000346129 |  |  |  |  |  |  |
| /translation | $\begin{aligned} = & \text { VFFAEDVGSNKGAIIGLMVGGVVIATVI } \\ & 49 \text { amino acids }=5.2 \mathrm{kDa} \end{aligned}$ |  | LV M LKKK | TSIHHGV |  |  |  |
| APP-204 |  | 3685 | 5 .. 3831 | 147 bp | $\square$ | $\rightarrow$ | CDS |
| /note | $=$ coding sequence ENSP00000350578 |  |  |  |  |  |  |
| /translation | $\begin{aligned} = & \text { VFFAEDV GSNKGAIIGLMVGGVVIATVI) } \\ & 49 \text { amino acids }=5.2 \mathrm{kDa} \end{aligned}$ |  | LV M LKKK | TSIHHGV |  |  |  |
| APP-205 |  | 3685 | 5 .. 3831 | 147 bp | $\square$ | $\rightarrow$ | CDS |
| /note | = coding sequence ENSP00000351796 |  |  |  |  |  |  |
| /translation | $\begin{aligned} = & \text { VFFAEDVGSNKGAIIGLMVGGVVIATVI } \\ & 49 \text { amino acids }=5.2 \mathrm{kDa} \end{aligned}$ | [VIT | LV M LKKK | TSIHHGV |  |  |  |





[^0]:    GTCAGCTTGTTCTTTGAAGCTTTGAAGGCAGGACTTCTCTCTAGTGATGAAAGTCCTAGATGGCATTTTCTTCCAAATAAGTCTG
     CAGTCGAACAAGAAACTTCGAAACTTCCGTCCTGAAGAGAGATCACTACTTTCAGGATCTACCGTAAAAGAAGGTTTATTCAGAC

