

Donor Template SNV -> REV

Protospacer Sequence

SNV

**INK2J00050R\_ERBB4\_R927Q\_B12\_AA**  
 11,710 bp

5'  
3'

ATTCTGTGCATGATTAATAAGAATAGTATAATAAGAATAGTATAATTCCTTCAGCCTCCATAGAATCTATAATGGTGATTTTGGCA  
TAAGACACGTAATAATTATTCTTATCATATTATTCTTATCATATTAAGAAGTCGGAGGTATCTTAGATATTACCACTAAAACCGT

85

ERBB4

ERBB4-202

CCATTAACTTCAAATGAAATATTTCTAAAAATTATGGATAAAGGTATTTGTTTGGATGTGTAGGGGGAAGATGACGTGAAGCAG  
GGTAATTTGAAGTTTACTTTATAAAGATTTTTAATACCTATTTCCATAAACAAACCTACACATCCCCCTTCTACTGCACTTCGTC

170

ERBB4

ERBB4-202

AAGTTATTGAGAAGGAATGATTACAAATATGTGGGTCAATCCAAGCATATGTTAGCTTATTTACTACAACACCTGCACACCTCAC  
TTCAATAACTCTTCCTTACTAATGTTTATACACCCAGTTAGGTTTCGTATACAATCGAATAAATGATGTTGTGGACGTGTGGAGTG

255

ERBB4

ERBB4-202

TAAAGAAAGAGTTTGCAAAAGGATATCAAGTCACTTGGAAAAATAATGATCTAACATTTAGCTCATGTGAAAGTAATTCITTCAT  
ATTTCTTTCTCAAACGTTTTCTTATAGTTCAGTGAACCTTTTTATTACTAGATTGTAAATCGAGTACACTTTCATTAAGAAAGTA

340

ERBB4

ERBB4-202

CTCATAGGACTTTAGGGAGAAAAACACCAAAAGCTGTTTGTGGTTTGTCTGTCCCCCAAATCAGGTTTTCTCTAATTTTGAAAATAT  
GAGTATCCTGAAATCCCTCTTTTTGTGGTTTTGACAAAACACCAAAACGACAGGGGGTTTAGTCCAAAAGAGATTA AAAACTTTTATA

425

ERBB4

ERBB4-202

TCTAGGATTCTGGCTTCACTTAAAAAATTAGGCACTTCCAAGTGAAGGCTAAGAACTTTGTTTTAGAAAAATGGGAAAACCTGG  
AGATCCTAAGACCGAAGTGAATTTTTAATCCGTGAAGGTTGACTTCCGATTCTTTGAAACAAAATCTTTTTACCCTTTTGGACC

510

ERBB4

ERBB4-202

GCATTAAGTGAATATCATTAAAGGAACTTGATATTTTTAGGGGAATGATGTACCTGGAAGAAAGACGACTCGTTCATCGGGATTTG  
CGTAATTGACTTATAGTAATTCCTTGAACATAAAAAGTCCCTTACTACATGGACCTTCTTTCTGCTGAGCAAGTAGCCCTAAAC

595

ERBB4

ERBB4-202

830 835 840  
G M M Y L E E R R L V H R D L  
ENSE00001002880  
ERBB4-202

GCAGCCCGTAATGTCTTAGTGAAATCTCCAAACCATGTGAAAATCACAGATTTTGGGCTAGCCAGACTCTTGGAAAGGAGATGAAA  
CGTCGGGCATTACAGAATCACTTTAGAGGTTTGGTACACTTTTTAGTGTCTAAAACCCGATCGGTCTGAGAACCCTTCTCTACTTT

680

ERBB4

ERBB4-202

845 850 855 860 865 870  
A A R N V L V K S P N H V K I T D F G L A R L L E G D E  
ENSE00001002880  
ERBB4-202

AAGAGTACAATGCTGATGGAGGAAAGGTGGGTATCTTTTTGAGAGCAATCTTGCTTGAAAATATAGTATAATATCCTTTTATCTC  
TTCTCATGTTACGACTACCTCCTTTCCACCCATAGAAAACTCTCGTTAGAACGAACTTTTATATCATATTATAGGAAAAATAGAG

765

ERBB4

ERBB4-202

875 880  
K E Y N A D G G K  
ENSE00001002880

ERBB4-202

CTTATATTTTATACAAGAAACCAATAAGCCTGAAGCTTAGGAGATTATTAAGCCTTGTTTCTACCATTTGCCTCTTCTCCTGCCC  
GAATATAAAATATGTTCTTTGGTTATTCGGACTTCGAATCCTCTAATAATTCGGAACCAAGATGGTAAACGGAGAAGAGGACGGG

850

ERBB4

ERBB4-202

ERBB4-202

CGGGTATATATATATGTGTGTGTATATATATATCATATACACACACATATATATATACCATATATTACCAGCTTCCGTTTCTCAA  
GCCATATATATATACACACACATATATATATAGTATATGTGTGTGTATATATATATGGTATATAATGGTCGAAGGCCAAAGAGTT

935

ERBB4

ERBB4-202

ERBB4-202

AAGTAGCTAAAATAAGATGATGCATGTCTGTACCCAGGTGACCTTCATGTTAGGTCCAGTGATGGAAGTGGGTGGATCCTTAGG  
TTCATCGATTTTATTCTACTACGTACAGACATGGGTCCACTGGAAGTACAATCCAGGTCACTACCTTTCACCCACCTAGGAATCC

1020

ERBB4

ERBB4-202

ERBB4-202

GCTTCTAGAAATTAACCTTTAACACATGGCTGTAGAAATTGTCCCACTGATCTAAAGACCGTAGCACTAACTCTTATAGAGAACA  
CGAAGATCTTTAATTTGAAATTGTGTACCGACATCTTTAACAGGGTGACTAGATTTCTGGCATCGTGATTGAGAATATCTCTTGT

1105

ERBB4

ERBB4-202

ERBB4-202

TAGATTCTCTCTCATAGATTAGAGAAAAGTTTAGGTAATAAAGAACCCCTGAACAGAGCCACTGCCTCGTCTACCTTTTCTGAC  
ATCTAAGAGAGAGTATCTAATCTCTTTTCAAATCCATGATGTTTCTTGGGACTTGCTCGGTGACGGAGCAGATGGAAAAGACTG

1190

ERBB4

ERBB4-202

ERBB4-202

CCTCTAGTCTCAGCCTCTGCCTGACAATGGAGTTTCTGACTCTTTACCCACTATATGGTTTCAATCCATGCCTTAGTCCCATGT  
GGAGATCAGAGTCGGAGACGGACTGTTACCTCAAGGACTGAGAAAGTGGGTGATATACCAAAGTTAGGTACGGAATCAGGGTACA

1275

ERBB4

ERBB4-202

ERBB4-202

CTTG TATTTT CCTC ATTAACCTTCTCTTTAGCTTGACTTTTCTTGGCCAAACTATTAGGACTAGACTTCATATGGAGGTCCCTCTAG  
GAACATAAAGGAGTAATTGGAAGAGAAATCGAACTGAAAGAACC GGTTTGATAATCCTGATCTGAAGTATACCTCCAGGGAGATC

1360

ERBB4

ERBB4-202

ERBB4-202

CTTCACCTAGTGAAACCTAAGGTCAGGCAGCCCAAATGAAATAAGCAAATGCAATCTTAGGCTATGGTGACCTATAAGCTTACAC  
GAAGTGGATCACTTTGGATTCCAGTCCGTCGGGTTTACTTTATTTCGTTTACGTTAGAATCCGATACCACTGGATATTCGAATGTG

1445

ERBB4

ERBB4-202

ERBB4-202

TAAACAACAACAAAAAACCAGTTATTCTCATGT CATATAAATATATTTATTATATGCCTTATTTATCATATGGGCCATCCAA  
ATTGTTGTTGTTTTTTTTTGGGTCAATAAGAGTACAGTATATTTATATAAATAATATACGGAATAAATAGTATACCCGGTAGGTT

1530

ERBB4

ERBB4-202

ERBB4-202

ATATATATTATAAATATTTTGAATGATAGGTTTCCAAATGCTTAACTTTATCACAAGGCCAAAATAACACAAAAAATTTTAAAAC  
TATATATAATATTTATAAACGTTACTATCCAAAGGTTTACGAATTGAAATAGTGTTCCGTTTTATTGTGTTTTTTAAAATTTTG

1615

ERBB4

ERBB4-202

ERBB4-202

TACCC TATTTTGCCTGTTTGT TTTACTACCAAATTCAGTAGTCTGAGACCACAGCATTGAAATTCACTCTAAGACTGCACAGAAG  
ATGGGATAAAACGGACAAACAAATGATGGTTTAAACGTCATCAGACTCTGGTGTCGTAAC TTTAAGTGAGATTCTGACGTGTCTTC

1700

ERBB4

ERBB4-202

ERBB4-202

TTGAAGTCTATAAATCACATGGCTTCACTTGTCTTGAGAACATAAGATTTGAGACATAAGATTTGTCTAAAGCAAGATTCATTAT  
AACTTCAGATATTTAGTG TACCGAAGTGAACAGAACTCTGTATTCTAAACTCTGTATTCTAAACAGATTTCTGTTCTAAGTAATA

1785

ERBB4

ERBB4-202

ERBB4-202

AGCTTTAAATGCTTGGTAACTATTAAGTCTTTATCAAGCTACCTGTGATTTAACTTACTTCTTTAACACAATGTCCGTAGTCCA  
TCGAAATTTACGAACCATTGATAATTCAGAAATAGTTTCGATGGACACTAAATTTGAATGAAGAAATTTGTGTTACAGGCATCAGGT

1870

ERBB4

ERBB4-202

ERBB4-202

TAAAGTCTGCTAACTCCTTGCCCGTAGGGAAATTACTTTCAATGTGTCTTCTCTTCCCTTTCACTGAATACCATGATTCTGTTCAT  
ATTTT CAGACGATTGAGGAACGGGCATCCCTTTAATGAAAAGTTACACAGAGAAGAGAAGGGGAAAAGTGACTTATGGTACTAAGACAGTA

1955

ERBB4

ERBB4-202

ERBB4-202

AGAGTTACCTTGGTGTACCTTGGTGAGCAGCCAACCTCATGATTTCAAAGGCCTATTTAGTTTTAAGCTTTCAACTGCAAAGTA  
TCTCAATGGAACCACAGTGGAAACCACTCGTCGGTTGGAGTACTAAAGTTTCCGGATAAATCAAATTCGAAAAGTTGACGTTTCAT

2040

ERBB4

ERBB4-202

ERBB4-202

GAAGTGTATCTTTATTCCATAGAATCTAATTATATTTCCAGCTATATAATGCTGCCCTTCATAGTTGAAACTCATTCTGCTGA  
CTTCACAAATAGAAAATAAGGTATCTTAGATTAATATAAGGGTCGATATATTACGACGGGAAGTATCAACTTTGAGTAAGACGACT

2125

ERBB4

ERBB4-202

ERBB4-202

CCCATCATCAGCAGGATATGTGGGTTGAGATGTTTTTCTTGTAGTGATGATAGATTTGTGCTGATCCTTTCACATTCTTTTATAT  
GGGTAGTAGTCGTCTATACACCCAACCTCTACAAAAAGAACATCACTACTATCTAAACACGACTAGGAAAGTGTAAAGAAAATATA

2210

ERBB4

ERBB4-202

ERBB4-202

AGTTCCTATTTTGAAAATGGTACATATTTTCAATACTGGCTAACCAAGATGAGAGGGGTCATTTGAAGCTGGAAAAACAAAGCAAG  
TCAAGGATAAAAACCTTTTACCATGTATAAAAAGTTATGACCGATTGGTTCTACTCTCCCCAGTAAACTTCGACCTTTTGTTCGTTTC

2295

ERBB4

ERBB4-202

ERBB4-202

GCTAACTTTGGAATTCATGATTTTAGGCGTTTTAGTGCCCAAATTATATGAGAGGAGAAGGGAGGGGGCAAGTATAGAAAGAGTC  
CGATTGAAACCTTAAGTACTAAAATCCGCAAAATCACCGGTTTAATATACTCTCCTCTTCCCTCCCCGTTTCATATCTTTCTCAG

2380

ERBB4

ERBB4-202

ERBB4-202

CATTGTA CTGGTGGCCCAAATGTGTCTGAGGGTGAAAAGGGATAACTGAAAGTATAACAAATCTCATTTTTTGGAGAAAAA ACTA  
GTAACATGACCACCGGGTTTTACACAGACTCCCACTTTTCCCTATTGACTTTTCATATTGTTTAGAGTAAAAA ACTCTTTTTTGTAT

2465

ERBB4

ERBB4-202

ERBB4-202

TAAACACATTTT TAGAAGCATGTGTATTAGATGTTTAGATTTAATATTATAAATCATAATTTTACTAGCAACTTAATTACTGAA  
ATTTGTGTAAAAATCTTCGTACACATAATCTACAAATCTAAATTATAATATTTAGTATTATAAATGATCGTTGAATTAATGACTT

2550

ERBB4

ERBB4-202

ERBB4-202

TGTTAATTAAGAACTATAGAAAGTTATCCCACTTAATTATTTTTACCTTTAATTGTTTATAAAGCTTTTTTTTTAAAAAATAA  
ACAATTAATCTTGATATCTTCAATAGGGGTGAATTAATAAAAAATGGAAATTAACAAATATTTTCGAAAAAAAAATTTTTTTATT

2635

ERBB4

ERBB4-202

ERBB4-202

GTATGACCAAGCAGGGTGGCTCACGTATGTAATCCAGCATTTTTGGGAGGTCAAAGCAGGCAGATCACTTGAGCTCAGGAGTTCT  
CATACTGGTTTCGTCCACCGAGTGCATACATTAGGGTCGTAAAACCTCCAGTTTCGTCCGTCTAGTGAACCTCGAGTCCCTCAAGA

2720

ERBB4

ERBB4-202

ERBB4-202

AGGCTAGCCTGGGCAACATGATGATCATCTCTAAAAAATGCAAAAATTAGCCAGGCATGGTGGCGCACCCCTGTGGTCCCGGCT  
TCCGATCGGACCCGTTGTAATACTACTAGTAGAGATTTTTTTACGTTTTTAATCGGTCCGTACCACCGCGTGGGGACACCAGGGCCGA

2805

ERBB4

ERBB4-202

ERBB4-202

ACTCAGAGGCTAAGGTGGGAGGATCACTTGAGCCTGGTAGGCAGAGATTGCAGTGAGCTGAGATTGTGCCATTGCACTCTAGCCT  
TGAGTCTCCGATTCCACCCTCCTAGTGAACCTCGGACCATCCGTCTCTAACGTCACTCGACTCTAACACGGTAACGTGAGATCGGA

2890

ERBB4

ERBB4-202

ERBB4-202

GGGTGACAGAGTGAGACCCTGTCTCAAAAAATAAATAAAAAATAAAAAATGAATAAGTATAGTACATCTTTAGATTAATTCACITTTA  
CCCCTGTCTCACTCTGGGACAGAGTTTTTTATTTATTTTATTTTACTTATTTCATATCATGTAGAAATCTAATTAAGTGAAAT

2975

ERBB4

ERBB4-202

ERBB4-202

TGTATTTTATAAATTAACATATATTTATAGTTATAGTCATAAATTAACATATATTTATAGTTATAGTTATATCTATACACACATA  
ACATAAAATATTTAATTGTATATAAATATCAATATCAGTATTTAATTGTATATAAATATCAATATCAATATAGATATGTGTGTAT

3060

ERBB4

ERBB4-202

ERBB4-202

ATAAAAAAAAAATGATTAAGGCCAGCCCAAAGACTCACATTTAGGAAATACATATAGAAATGAATTTTTAATGTAATTTTTAAACT  
TATTTTTTTATACTAATTCGGTTCGGGTTTCTGAGTGTAATCCTTTATGTATATCTTTACTTAAAAATTACATTAATAATTTTTGA

3145

ERBB4

ERBB4-202

ERBB4-202

TTTACTTCTTACTTCTCTATAGATGCCAATTAATGGATGGCTCTGGAGTGATACATTACAGGAAATTCACCCATCAGAGTGAC  
AAATGAAGAATGAAGAGATATCTACGGTTAATTTACCTACCGAGACCTCACATATGTAATGTCCTTTAAGTGGGTAGTCTCACTG

3230

ERBB4

ERBB4-202

885 890 895 900  
M P I K W M A L E C I H Y R K F T H Q S D  
ENSE00000965161

ERBB4-202

GTTTGGAGCTATGGTAAATAAATCTTCTTTGCGAATTAAGCTTGTAAGCAAAAATACATATGTTAAGTTCATGTGAAATATCT  
CAAACCTCGATACCATTTATTTAGAAGAAACGCTTAATTTGCAACATTTGTTTTTATGTATACAATTCAGGTACACTTTATAGA

3315

ERBB4

ERBB4-202

905  
V W S Y  
ENSE00000965161

ERBB4-202

TAAGCTAAATTATTTTGTGTTTATAAATACCTATTGATAAGCCTAATTTCTAAAGCAGTTAACTCTTTGCTTTCTCAATGAA  
ATTCGATTTAATAAAACAACACAATATTTATGGATAACTATTCGGATTAAAGGATTTGTCGAATTGAGAAACGAAAGAGTTACTT

3400

ERBB4

ERBB4-202

ERBB4-202

AAAAAATATTTTATTTTATTTTATTTTATTTTATTTTAAAGTTCTGCGATACACATGCAGAACCTGCAGGTTTGTGCGTAGGTA  
TTTTTTTATAAAATAAAATAAAATAAAATAAAATAAAATTCAGACGCTATGTGTACGTCCTGGACGTCCAAACAACGCATCCAT

3485

ERBB4

ERBB4-202

ERBB4-202

TACATGTGGCATGGTGGTTTGCTGTACCTATCAACCCGTCATCTAGGTTTTAAGCCCTGCATGCATTAGGTATTTGTCCTAATGC  
ATGTACACCGTACCACCAAACGACATGGATAGTTGGGCAGTAGATCCAAAATTCGGGACGTACGTAATCCATAAACAGGATTACG

3570

ERBB4

ERBB4-202

ERBB4-202

TCTCCCTCCCTTGCCCTCCATCCACCGACAGGCCCGATGTGTGATGTTCTCCTCCCTGTGTCCATGTGTTCCCATTTGAAGAGC  
AGAGGGAGGGGAACGGGAGGTAGGTGGCTGTCCGGGGCTACACACTACAAGAGGAGGGACACAGGTACACAAGGGTAACCTCTCG

3655

ERBB4

ERBB4-202

ERBB4-202

AACAAAATATTCTAAATAGCATTGCTATCTGCCTTTTTCTGTTTTTTTTTTTTTTTTCTCTGGTTTATTACAATGTAATATACTAATAT  
TTGTTTTATAAGATTTATCGTAACGATAGACGGAAAAAAGACAAAAAAAAAAAAAAGGACCAATAATGTTACATTATATGATTATA

3740

ERBB4

ERBB4-202

ERBB4-202

TTCTGCTAAGATGTTTTCCATAAGCTGTGGTTTTGTAGGAACTTGCTGATCATTTTTGACAGAAAAAAAAAAAAATCAGCCAATTT  
AAGACGATTCTACAAAAGGTATTCGACACCAAAACATCCTTGAACGGACTAGTAAACTGTCTTTTTTTTTTTTTTAGTCGGTTAAA

3825

ERBB4

ERBB4-202

ERBB4-202

TAGTTTAGGGACAATTTTCATAGAATTTTCATGGTGTAAATTTAAGCAACTTTCAAAAACATAACTCTGAATACAATAAATATTCA  
ATCAAATCCCTGTTAAAGTATCTTAAAGTACCACAATTAATTCGTTGAAAGTTTTTGTATTGAGACTTATGTTATTTATAAGT

3910

ERBB4

ERBB4-202

ERBB4-202

AACAAAAACAAAACCAACTTTTTTGTGGGTTTCTTGCATGTAAGAATTTATGTTCTATAGTAGAAAAACAGATTATTGTCATAACA  
TTGTTTTTGTGGTTGAAAAACACCCAAAGAACGTACATTCTTAAATACAAGATATCATCTTTTTGTCTAATAACAGTATTGT

3995

ERBB4

ERBB4-202

ERBB4-202

AAGAAAAATTAAGTACTGACAGCAGTAAGTTAGAGCAATGAACATGGTAAAAGAGAAGATTGCTAATTACAACATTAATTTAATTTAC  
TTCTTTTTAATGACTGTCGTCATTCAATCTCGTTACTTGTACCATTTTCTCTTCTAACGATTAATGTTGTAATTAATTAATTAATG

4080

ERBB4

ERBB4-202

ERBB4-202

AACTACTTGTGGAGTTACAGAAATATTACAGAGTGAATAATATGAACTGGAAAAGAGTGACATTTATAATTAGAACATTTATTT  
TTTGATGAACACCTCAATGTCTTTATAATGTCTCACTTATTATACTTGACCTTTTCTCACTGTAAATATTAATCTTGTAATAAAA

4165

ERBB4

ERBB4-202

ERBB4-202

TATTGTGTTAACTTAATTGTTAAGATGAGCTATTTAGCATCTGTCTGGCTACTTAAAATTTAAGTAAGTCCGGTAATACCAAGA  
ATAACACAAATTGAATTAACAATTCTACTCGATAAATCGTAGACAGACCGATGAATTTTAAATTCATTCAGGCCATTATGGTTCT

4250

ERBB4

ERBB4-202

ERBB4-202



AGGAGTCAATACGTTTCTAAGTTTAAATATATCATATAAAATTAGCATTTTCTTACAAATAAAAAAGCATAATGCCCACTTAAATAA  
TCCTCAGTTATGCAAAGATTCAAATTTATATAGTATATTTTAATCGTAAAGAATGTTTATTTTTTCGTATTACGGGTGAATTTATT

4335

ERBB4

ERBB4-202

ERBB4-202

AAGGGTGGTGGTGAGATTTAAATGTATGGTACAATTTATGTTACTCAAACCTTAAGCTTAAAAAAGTTTTACCTTTTTTGCATT  
TTCCCACCACCACTCTAAATTTACATACCATGTTAAATACAATGAGTTTGAATTCGAATTTTTTTTTCAAATGGAAAAAACGTAA

4420

ERBB4

ERBB4-202

ERBB4-202

GTTGGAAAAAAGATATAAACCAATCAATCACTGAAGAACTTACAATCTTATCTAGGAAAAATTAACCTATCTTTAAAAAAG  
CAACCTTTTTTTTTCTATATTTGGTAAGTTAGTGACTTCTTGAATGTTAAGAATAGATCCTTTTTTAATTGATAGAAATTTTTTC

4505

ERBB4

ERBB4-202

ERBB4-202

TATTTAAGACATTTCAATCAAGTGGGTTATTCCTTCCACATATGTATTCCATAGGAGGTGGTAAAAATTTTCATGAAGGTTTCATG  
ATAAATTCTGTAAAGTTAGTTCACCCAATAAGGAAGGTGTATACATAAGGTATCCTCCACCATTTTAAAAGTACTTCCAAAGTAC

4590

ERBB4

ERBB4-202

ERBB4-202

TGTTTATTTTACTCAGCTTAGAAATAGAAATGTCGTGTGTCTGAGGTATAGACAAATGTAGTGGAATGCTTGACAAAACCTTAC  
ACAAATAAAATGAGTCGAATCTTTATCTTTTACAGCACACAGACTCCATATCTGTTTACATCACCTTTACGAACTGTTTTGAATG

4675

ERBB4

ERBB4-202

ERBB4-202

TTGCTAAACTATTGTAAGAAGGTGTATAGAAAAACATCTATTGCATGTATTCTGTGATAACTTTATATATTATATGATACAGATTA  
AACGATTTGATAACATTCTTCACATATCTTTTTGTAGATAACGTACATAAGACACTATTGAAATATATAATATACTATGTCTAAT

4760

ERBB4

ERBB4-202

ERBB4-202

GCATGTAGATTAGCATTTATACATTACATGATATAGATAGGTTTATAGAATATATATTATGTCAGATTTATATATTATATCATAT  
CGTACATCTAATCGTAAATATGTAATGTACTATATCTATCAAATATCTTATATATAATACAGTCTAAATATATAATATAGTATA

4845

ERBB4

ERBB4-202

ERBB4-202

AGTATATTTTATATATGTATATACTTTTTCTTTTTCTTTCTACTTACAGTTCCTGAATCAAATATGGCAGTCTCCTGAAGGCA  
TCATATAAAATATATACATATATGAAAAAAGAAAAAGAAAGATGAATGTCAAGGGACTTAGTTTATACCGTCAGAGGACTTCCGT

4930

ERBB4

ERBB4-202

ERBB4-202

AATTTAAATTAGCTCAAGATATATAGGCAGTCTCCTGAAGGCAAATTTAAATTAGCTCAAGATATATATAAACTGGGCAGAACAG  
TTAAATTTAATCGAGTTCTATATATCCGTCAGAGGACTTCCGTTTAAATTTAATCGAGTTCTATATATATTTGACCCGTCTTGTC

5015

ERBB4

ERBB4-202

ERBB4-202

TCATATTTTTAATAGTAAAATTTGTCTTTTGGGGAAAATCTTGTTACTCAGGGTGTAAACATTTTTCTTCATGTTGAGTTGCAAAA  
AGTATAAAAATTATCATTTTTAAACAGAAAACCCCTTTTGAACAATGAGTCCCACATTGTAAAAAGAAGTACAACCTCAACGTTTT

5100

ERBB4

ERBB4-202

ERBB4-202

TCCCAGGAACTGTTTCAGCAAAAATAAATAAATAGATAGGTAGTACTCTGTTTTGAAACACAGCCCAGGTCATCAACCCATATTCA  
AGGGTCCTTGACAAGTCGTTTTTATTTATTTATCTATCCATCATGAGACAAAACCTTTGTGTCGGGTCCAGTAGTTGGGTATAAGT

5185

ERBB4

ERBB4-202

ERBB4-202

TAAGGCATTTAAAAAATGTTGTGATATATCATAGTTGATTGCAAAAAGGCGTTAAAGGCAGATAAAGTTGCATAACCTTGTTTACA  
ATTCGTAATTTTTTACAACACTATATAGTATCAACTAACGTTTTCCGCAATTTCCGTCTATTTCAACGTATTGGAACAAATGT

5270

ERBB4

ERBB4-202

ERBB4-202

GTGCACCTTTATGGAAAATTCCTACTAGGTGCATTTTTATTTTTACAAAATAAGCACTGGCTGTGATATACATCTTAAGATAAAG  
CACGTGGAAATACCTTTTAAGAGTGATCCACGTAAAAATAAAAATGTTTTATTCGTGACCGACACTATATGTAGAATTCTATTTTC

5355

ERBB4

ERBB4-202

ERBB4-202

GAATTGCAAGTAAAATTCGAGGATGTTTTGTTTTAGCTTTTCTGACATTGTTCTTTTTGCTTGAAACCATCCTTTTTCTAACCCAT  
CTTAACGTTTCATTTTAAGCTCCTACAAAACAAAATCGAAAGGACTGTAACAAGAAAACGAACTTTGGTAGGAAAAGATTGGGATA

5440

ERBB4

ERBB4-202

ERBB4-202

CTTGTTCATCACCTTTACAAGGATATAAATTGGATTATTATCAGAAGAAGTAGAGTTTTTTTATATTTTTGGCTTTTTGTTTTTGTATTT  
GAACAGTAGTGGAAATGTTCTTATATTAACCTAATAATAGTCTTCTTCATCTCAAAAAATATAAAACCGAAAAACAAAAACATAAA

5525

ERBB4

ERBB4-202

ERBB4-202

TATATTTTCTATTATTTTGGATTTACAGTTGCTTTGTATCTTGTCTTATGTTGGGAGTTCTGCTAGAAATGTGAGAGTATCTACTCT  
ATATAAAAGATAATAAACTAAATGTCAACGAAACATAGAACGAATACAACCCTCAAGACGATCTTTACTACTCTCATAGATGAGA

5610

ERBB4

ERBB4-202

ERBB4-202

ATCTTTTATAACTACCTACCTAAGTTAATAAAGTGTCTCTTAAATATATATTCTAGGCCCCGCACGGTGTCTCGTGCTTGTAA  
TAGAAAAATATTGATGGATGGATTCAATTATTTTACAAGAGGAATTTATATATAAGATCCGGGGCGTGCCACAGAGCACGAACATT

5695

ERBB4

ERBB4-202

ERBB4-202

TCCTAGCATTTAGGGAGGCCGATGTGGGCAGATGGCTCAAACCCAGGAGTTTGAGACCAGCCTGGGCAACATGCTGAAACCCCTTT  
AGGATCGTAAATCCCTCCGGCTACACCCGTCTACCGAGTTTGGGTCTCAAACCTCTGGTCGGACCCGTTGTACGACTTTGGGAAA

5780

ERBB4

ERBB4-202

ERBB4-202

ATCTACTAAAAATACGAAAAATCAGCCAGGCATGGTGGCTCATGCCTGTAGTCCCAGCTACTCAGGAAGCTGAGGTGAAAAGATC  
TAGATGATTTTTTATGCTTTTAGTCGGTCCGTACCACCGAGTACGGACATCAGGGTTCGATGAGTCTTTCGACTCCACTTTTCTAG

5865

ERBB4

ERBB4-202

ERBB4-202

ATGTGAGCCTGGGGAAGTTGAGGGTGCAGTGAGCTGTGATCATGCCTCTTCATTCCATTCTGAGTGACAGATTGAGACCCTGTCT  
TACACTCGGACCCCTTCAACTCCACGTCACCTCGACACTAGTACGGAGAAGTAAGGTAAGACTCACTGTCTAACTCTGGGACAGA

5950

ERBB4

ERBB4-202

ERBB4-202

AAAATACAAAATAGATAATTCTAAAATATAAACTATTCTAAATATAAAAATATTCTAAAATATAAAACATATATATATATTCTGTA  
TTTTATGTTTTATCTATTAAGATTTTATATTTGATAAGATTTATATTTATAAGATTTTATATTTTGTATATATATAAGACAT

6035

ERBB4

ERBB4-202

ERBB4-202

AGTATGACTATCTAGAGATGAACAGTCATCCACTTAACTTGTTCAGCCTGCCTCATAGAAAATTTTTATGATAGATTTTAGGAG  
TCATACTGATAGATCTCTACTTGTCTAGTAGGTGAATTGAACAACGTCGGACGGAGTATCTTTTTAAAAATACTATCTAAAATCCTC

6120

ERBB4

ERBB4-202

ERBB4-202

CTTCTCCTTAATATACAAAATTAAGATGTAATAACAATCAGTCAATTAATTGTCACTAGGTACATGTTAACAATATACCTAAA  
GAAGAGGAATTATATGTTTTAATTTCTACATTATTGTTAGTCAGTTAATTTAACAGTGATCCATGTACAATTGTTATATGGATTT

6205

ERBB4

ERBB4-202

ERBB4-202

ATCCTAAGATGTAATATTAACCAAAAAAATCAGGTAATAGTTAATATTCTATTAGAAAAGAATAATTTTTAAATTCACATAGTTT  
TAGGATTCTACATTTATAATTGGTTTTTTTTAGTCCATTATCAATTATAAGATAATCTTTCTTATTAATAATTTAAGGTGTATCAA

6290

ERBB4

ERBB4-202

ERBB4-202

TATATTTTAAGCTTTGTATTTTTGTTATCAGTCAATGATAACTGTTATAAACTAAAAAATACTTCAGCCTGAGTAAATAATTCAT  
ATATAAAATTCGAAACATAAAAAACAATAGTCAGTTACTATTGACAATATTTGATTTTTTATGAAGTCGGACTCATTTATTAAGTA

6375

ERBB4

ERBB4-202

ERBB4-202

TACAGATGGCAATAGGAAAAGAAAAACATAGCTCTAATTAATGGATTTTTATACTGAAAGATGACTGTATATACACATCAATCAAAAT  
ATGTCTACCGTTATCCTTTCTTTTGTATCGAGATTAATTACCTAAAAATATGACTTTCTACTGACATATATGTGTAGTTAGTTTTA

6460

ERBB4

ERBB4-202

ERBB4-202

TCACTTTGTAAATATTATTGTGCCAGCTAGCCATGTCTGAACTTAAAAATCTTTATCCCTAAGAAAATATTATCTTAAATTATAT  
AGTGAAACATTATAATAACACGGGTCGATCGGTACAGACTTGAATTTTTAGAAATAGGGATTCTTTTATAAATAGAATTTAATATA

6545

ERBB4

ERBB4-202

ERBB4-202

AATCATTACATTACAAAAAAGATATTTAGTGTATATATTATTGCTCAAATCAGAACCATCATTATCACCAAAACTGGCTGTTTTGC  
TTAGTAATGTAATGTTTTTTCTATAAATCACATATATAAATACGAGTTTAGTCTTGGTAGTAATAGTGGTTTTGACCGACAAACG

6630

ERBB4

ERBB4-202

ERBB4-202

ATGCTACCATTTAGGGTATTTGCTTTTGCAGAGAAAATCAATGTCCCAGTGATTCAAGAAAGCCATTTTATTACCTAAAAAATAA  
TACGATGGTAAATCCCATAAACGAAAACGTCTCTTTTAGTTACAGGGTCACTAAGTTCTTTTCGGTAAAAATAATGGATTTTTTATT

6715

ERBB4

ERBB4-202

ERBB4-202

ACTACTTTCTATCCCCTTCACAATTTTGTGGTGACTACTTCACATGTAATATATTACGTATGGAACATTCTCTCTCAGGCT  
TGATGAAAGATAGGGGAAGTGTAAAAACAACCACTGATGAAGTGACATGATATATAATGCATACCTTGTAAAGGAGAGAGTCCGA

6800

ERBB4

ERBB4-202

ERBB4-202

CTCATATGTGCTAAAGAAGTCTATGTTTTATTCAACTGTTTTCTTTGTGTAAGTTAGAGAGAGTCACAATTCCTTTATTGTAACAT  
GAGTATACACGATTTCTTCAGATACAAAATAAGTTGACAAAAGAAACACATTCAATCTCTCTCAGTGTTAAGAAAATAACATTGTA

6885

ERBB4

ERBB4-202

ERBB4-202

PCR Forward  
CTGGAAGCCTTTTATAGCAAAGATG

AAGGTAATTATTCTGGAAGCCTTTTATAGCAAAGATGCTGATCTTAAAAATTAGTCAATATCTTATTTTACTGGCAAAAAGCATATT  
TTCCATTAATAAGACCTTCGGAAAATATCGTTTCTACGACTAGAATTTTAAATCAGTTATAGAATAAAATGACCGTTTTTCGTATAA

6970

ERBB4

ERBB4-202

ERBB4-202

TATTGGTACTGAATACATATGTATATATAGTAGATGAATTGTTTTATGGACTGTAACGTGGTATAACTTGGATCAGCAAACATTA  
ATAACCATGACTTATGTATACATATATATCATCTACTTAAACAAAATACCTGACATTGCACCATATTGAACCTAGTCGTTTGTAAAT

7055

ERBB4

ERBB4-202

ERBB4-202

GTGTTACCTATAGGCAGAAATGGGGAACAGATTCTATATGCTGACATCCACTGTAAATTGTCTCTTCTATCCATTAGAAATTCCA  
CACAATGGATATCCGTCTTTACCCCTTGTCTAAGATATACGACTGTAGGTGACATTTAACAGAGAAGATAGGTAATCTTTAAGGT

7140

ERBB4

ERBB4-202

ERBB4-202

AGACAATAATAAGAAAATTGAATTCACCAAAAGATTTTACACTTGGGGTTCTCATAATGGATGCAGGAATTTATGGAGCTTTT  
TCTGTTATTATTCTTTTAACTTAAAGGGGGTGTCTTCTAAAACCTGTAACCCCAAGAGTATTACCTACGTCTTAAATACCTCGAAAA

7225

ERBB4

ERBB4-202

ERBB4-202

TTTTTTTAAATTGATTGGTGTGGATTGACCTGTAAGGAGTATTCTTTTACTACTGGTATAGTGCTGGTTTGTTC AACATATGT  
AAAAAAAAATTAAC TAACCACAAACCTAACTGGACATTCCTCATAAGAAAATGATGACCATATCACGACCAAAACAAGTTGTATACA

ERBB4

ERBB4-202

ERBB4-202

Donor Template SNV -> REV

ATATAGGAGTTACTATATGGGAAGTATGACCTTTGGAGGAAAACCTATGA

TGTTAATATGCTTAAGTAAGAATTTTTCTCCAATATAGGAGTTACTATATGGGAAGTATGACCTTTGGAGGAAAACCTATGA  
ACAATTATACGAATTCATTCTTAAAAAAGAGGTTATATCCTCAATGATATACCCTTGACTACTGGAAACCTCCTTTTGGGATACT

ERBB4

ERBB4-202

G V T I W E L M T F G G K P Y D  
ENSE00000965162

ERBB4-202

Donor Template SNV -> REV

Donor Template SNV -> REV

TGGAATTC AACCGC GAGAAATCCCTGATTTATTAGAGAAAGGAGAACG

TGGAATTC AACCGC GAGAAATCCCTGATTTATTAGAGAAAGGAGAACGTTTGCCTCAGCCTCCCATCTGCACTATTGACGTTTAC  
ACCTTAAGGTTGCGCTCTTTAGGGACTAAATAATCTCTTTCTCTTGCAAACGGAGTCGGAGGGTAGACGTGATAACTGCAAATG

ERBB4

ERBB4-202

G I P T R E I P D L L E K G E R L P Q P P I C T I D V Y  
ENSE00000965162

ERBB4-202

Donor Template SNV -> REV



ATGGTCATGGTCAAATGTAAGACTGCAAAAATAATGTTATCACCATCATCATTCTTAGTAAAGTAATAGCAGAGATTACTCAATCT  
TACCAGTACCAGTTTACATTCTGACGTTTTATTACAATAGTGGTAGTAGTAAGAATCATTTCATTATCGTCTCTAATGAGTTAGA

ERBB4

ERBB4-202

M V M V K  
ENSE00000965162

ERBB4-202



GTACAACATTTCTCTGTATTGAAAAATACGACAGTTCAAAAACAATTATGAAAGGAACATATGAACGCCTCTTTGTTGTGACTAT  
CATGTTGTAAGAGACATAACTTTTTATGCTGTCAAGTTTTTGTTAATACTTTCTTGTATACTTGCGGAGAAAACAACACTGATA

ERBB4

ERBB4-202

ERBB4-202

TATTAATATAAAGTAATACTCTTCCATGCTATGAAGTCAAAATTATGACTCTTTTATTCTTATAATCTCCATGACAGTCAAATTG  
ATAATTATATTTTCATTATGAGAAGGTACGATACTTCAGTTTTAATACTGAGAAAAAATAAGAATATTAGAGGTACTGTCAGTTTAAAC

7735

ERBB4

ERBB4-202

ERBB4-202

CCTGTCGTAAAGAGAGGTAATTAGTCACAATAATGTTATTACTAACATTACTAACATGAATGTTAGTAATAACATTAGTGACCTT  
GGACAGCATTCTCTCCATTAATCAGTGTTATTACAATAATGATTGTAATGATTGTACTTACAATCATTATTGTAATCACTGGAA

7820

ERBB4

ERBB4-202

ERBB4-202

TATGGGAAAATATCAAACATTAGTGACCTTTATGGGAAAATATCAGGCTACATAAATGATCTAAACATGAAGGAAAAAAGCTTGA  
ATACCCTTTTATAGTTTGTAACTACTGGAAATACCCTTTTATAGTCCGATGTATTTACTAGATTTGTACTTCCTTTTTTTCGAACT

7905

ERBB4

ERBB4-202

ERBB4-202

AACTGACAGTTTTAAAAATTAATTTAATAGAAATAGGTCTACTGGTTTTAGTCAGGAGCAAATTAGCAGGACAAGGTGGGAAGTG  
TTGACTGTCAAATTTTTAATTAATTATCTTTATCCAGATGACCAAATCAGTCCTCGTTTAATCGTCCTGTTCCACCCTTCAC

7990

ERBB4

ERBB4-202

ERBB4-202

CAGTCCTCGTTTAAATCGTCCTGTTTC  
PCR Reverse

GGAAGAAATGAATCTATAGTGAGCTAAAAAGATTATAAATGTTTACTTTTTCAATTTGATCATTGTTTACATCAAACCTTTAC  
CCTTCTTTACTTAGATATCACTCGATTTTTCTAATATTTACAAATGAAAAAAGTTAAACTAGTAAACAAATGTAGTTTGAGAATG

8075

ERBB4

ERBB4-202

ERBB4-202

TTTTCTTTTTTCTTCTATGTCCAGACACATATGTATTATAAATGTGTTTTTGAAGCACAGGCCCTTAATTTAAATAGAATTGA  
AAAAGAAAAAAGAAGGATACAGGGTCTGTGTATACATAATTTACACAAAAACTTCGTGTCCGGGAATTAATTTATCTTAACT

8160

ERBB4

ERBB4-202

ERBB4-202

GGAAGTCTCTGGAGTTTCTGGCTTAATTTAAGTGAGATTAACATGCAGCAATCTCTTGTATAATCTAAGGCTTTCCCTTCTG  
CCTTCAGAGACCTCAAAGACCGAATTAATTTCACTCTAATTTGTACGTCGTTAGAGAGAACATATTAGATTCCGAAAGGGGAAGAC

8245

ERBB4

ERBB4-202

ERBB4-202

ATTTACACGGGGTTAGCAAAGAAACAAACTTGTGAAGGTGAATAAGCATCTTATTAATAAGAGACTTTGGACCCAGGTCTACTCA  
TAAATGTGCCCAATCGTTTCTTTGTTTGAACACTTCCACTTATTCGTAGAATAATTATTCTCTGAAACCTGGGTCCAGATGAGT

8330

ERBB4

ERBB4-202

ERBB4-202

GATTTATATTCATGACATGTGTGATACATTCTGACAGTGAGGGAGGAAATAAAAAATGTTCTTTGCAGTTCAGGTCAGCCTGCCC  
CTAAATATAAGTACTGTACACACTATGTAAGACTGTCACTCCCTCCTTTATTTTTTACAAGAAACGTCAAGTCCAGTCGGACGGG

8415

ERBB4

ERBB4-202

ERBB4-202

TTTTCACTAAGCATAGTTCTATTTACTCAATATTTAGTTGGAAAGAAACCGATACCTCAACTGTGGTTAACCTTTTTTGGCTTCA  
AAAAGTGATTTCGTATCAAGATAAATGAGTTATAAATCAACCTTTCTTTGGCTATGGAGTTGACACCAATTGGAAAAAACCGAAGT

8500

ERBB4

ERBB4-202

ERBB4-202

ATAGTTTTCAGAAACACCTGTTTTCTCATTAGCATCTTGGCATTAGCAAGCATTTTTTCAAATGAATGCATATAGAATACAGAGCA  
TATCAAAGTCTTTGTGGACAAAAGAGTAATCGTAGAACCGTAATCGTTTCGTAAAAAAGTTTACTTACGTATATCTTATGTCTCGT

8585

ERBB4

ERBB4-202

ERBB4-202

TTTGAGCTTTGTTTGGGGAGAAAAAAGCAGATGACATTAATGATACATAAAATGACACCCAAAAAATTTCCAGAATAGGAATAA  
AAACTCGAAACAAACCCCTCTTTTTTTCGTCTACTGTAATTACTATGTATTTTACTGTGGGTTTTTTAAGGGTCTTATCCTTATT

8670

ERBB4

ERBB4-202

ERBB4-202

AAACTGAACTCCCGGAAAAGGAAGGAACAAGCTTTACAGCCTTATTCTATTAATATTGTTTGGTAGACATCTATGGAAGAAAGT  
TTTGACTTGAGGGCCTTTTCCTTCCTTGTTTCGAAATGTCGGAATAAGATAATTTATAACAAACCATCTGTAGATACCTTCTTTCA

8755

ERBB4

ERBB4-202

ERBB4-202

TTAAAAACATGCATGTCTTATATAATTTAATCCTGTAAGTACATAGGAAATGATTTAAACTCATCAGAATTTAGCTCTGATGAA  
AATTTTTGTACGTACAGAATATATTAATTAGGACATTGATCGTATCCTTTACTAAATTTGAGTAGTCTTAAATCGAGACTACTT

8840

ERBB4

ERBB4-202

ERBB4-202



ATTAATTATGTAAAACCAAGAAAACTTTCCCTAATGGAGAATTTTACCTTTCTTTTCGGGGTTTTAATACCTAAGAAGAGGATA  
TAATTAATACATTTTTGGTTCTTTTGTGAAAGGGATTACCTCTTAAATGGAAAGAAAGCCCCAAAATTATGGATTCTTCTCCTAT

8925

ERBB4

ERBB4-202

ERBB4-202

ATTTGGCAAGAAAATCAAGGAAAGCTTGATACTTTTATTCTTGTTCATCTCATTAGCTAAACAGAGCCTGTAGAGATAAGGTCTGC  
TAAACCGTTCTTTTAGTTCCCTTTCGAACTATGAAAATAAGAACAGTAGAGTAATCGATTTGTCTCGGACATCTCTATTCCAGACG

9010

ERBB4

ERBB4-202

ERBB4-202

TTTATCTAGACTCCCAGCTAAATAAGAATACATACCTTGAAAATTGCTGATAGTATTTTTATACTAGACAAGCTAGTACTAAGAT  
AAATAGATCTGAGGGTCGATTTATTCTTATGTATGGAACTTTTAACGACTATCATAAAAATATGATCTGTTTCGATCATGATTCTA

9095

ERBB4

ERBB4-202

ERBB4-202

AAGCTAATGTCTATTGCTGAACAGGCATTACCAATCACTTTGCATTAGTTTTTTTTTTTTTTTTTTTTGTCCACCAGGACAAATGT  
TTCGATTACAGATAACGACTTGTCCGTAATGGTTAGTGAAACGTAATCAAAAAAAAAAAAAAAAAAACAGGTGGTCTCTTTTACA

9180

ERBB4

ERBB4-202

ERBB4-202

AGCACAAAGAAAGTTGCTTTTAATTCCTCTTTTCCCGTTTGTGCCAGTGTAAGCATTGTAACCAATCTTCTCTCCTATGTCCTC  
TCGTGTTCTTTCAACGAAAATTAAGGAGAAAAGGGCAAACACGGTCACATTCGTAACATTGGTTTTAGAAGAGAGGATACAGTGAG

9265

ERBB4

ERBB4-202

ERBB4-202

CTAATACAAAATAAATACTTATATTGCAGTCACGTCTATACACATCAGAGAAAAATTTATCTTTTGTGTTTACAGTACATTACAT  
GATTATGTTTTATTATTGAATATAACGTCAGTGCAGATATGTGTAGTCTCTTTTTTAAATAGAAAACAAAATGTCATGTAATGTA

9350

ERBB4

ERBB4-202

ERBB4-202

TTAGTTATGAATATCAACAAAGAGACCGATAAAGCCTTACCAATTGAGTCGTTTCTTTCACTAGCTTGCTTTCTTTCTCAGATCA  
AATCAATACTTATAGTTGTTTCTCTGGCTATTTTCGGAATGGTTAACTCAGCAAAGAAAGTGATCGAACGAAAGAAAGAGTCTAGT

9435

ERBB4

ERBB4-202

ERBB4-202

TTACGATTAAAAACAACATTTTTTCAAACCTTTTGGCTCATATTTTACAAAAATTTAAATTTCAACTCCTTTCTAGTTACGAATATAGT  
AATGCTAATTTTGTGTGAAAAAGTTTGAAAAACGAGTATAAAAAGTGTTTTAAATTTAAAGTTGAGGAAAGATCAATGCTTATATCA

9520

ERBB4

ERBB4-202

ERBB4-202

GACATTTTCACTGTGTAAATTTCCAGGTTGGATGATTGATGCTGACAGTAGACCTAAATTTAAGGAACTGGCTGCTGAGTTTTTCA  
CTGTAAAAAGTGACACATTTAAAGGTCCAACCTACTAACTACGACTGTCATCTGGATTTAAATTCCTTGACCGACGACTCAAAAAGT

9605

ERBB4

ERBB4-202

960 965 970 975  
C W M I D A D S R P K F K E L A A E F S  
ENSE00001002882

ERBB4-202

AGGATGGCTCGAGACCCTCAAAGATACCTAGTTATTCAGGTGAGTACATTTGACTTATGCCTTTAAGACTAGGCCAATGGCAAAC  
TCTTACCAGCTCTGGGAGTTTCTATGGATCAATAAGTCCACTCATGTAACTGAATACGGAAATTCTGATCCGGTTACCGTTTG

9690

ERBB4

ERBB4-202

980 985  
R M A R D P Q R Y L V I Q  
ENSE00001002882

ERBB4-202

TCACTGCAAAATGAGTAGTATCAGGACTTTGGAAGTGTGGAAGGACCACAAACATGTTGATTAATTAAGCAGAATTATCATGTG  
AGTGACGTTTTACTCATCATAGTCTGAAACCTTGACACCTTTCTGGTGTGTGTACAACATAATTAATTCGTCTTAATAGTACAC

9775

ERBB4

ERBB4-202

ERBB4-202

ACATGACTTATGGAAAAGAGCTTTTTATTTACGTCAGATCCACCTTTTAGCACCTTCCCTTAGTATTCAAGTGGCTCTGCTACT  
TGTACTGAATACCTTTTCTCGAAAAATAAAGTGCAGTCTAGGTGGAAAATCGTGGAAGGGAATCATAAGTTCACCGAGACGATGA

9860

ERBB4

ERBB4-202

ERBB4-202

GAACAGATAATTATGATTATACATATACATAAAAGAGGTCTTAATCCTCAGACACTTATTTTAGCACCTTGATTTTATTAACATTA  
CTTGTCTATTAATACTAATATGTATATGTATTTCTCCAGAATTAGGAGTCTGTGAATAAAATCGTGGAACCTAAAAATAATTGTAAT

9945

ERBB4

ERBB4-202

ERBB4-202

TGTGTAAGTCATGTTTCATTAGTATAATTTCTTTTTTCGGAACAAAAGGAAGACAGATTTTTGTTTTAATCTTGCCCATGCTTGA  
ACACATTCAGTACAAGTAATCATATTTAAAGAAAAAGCCTTGTTTTCTTCTGTCTAAAAACAAAATTAGAACGGGTACGAACT

10,030

ERBB4

ERBB4-202

ERBB4-202

AGACAGTGAATCAAAAGTTTCAGTATATTATTTAATTTCCCAAAAATATTTTAAAAATATGTTTTGTTTTATTTGGAGAGATATG  
TCTGTCACTTAGTTTTCAAAGTCATATAATAAATTAAGGGGTTTTTATAAAAATTTTATACAAAACAAAATAAACCTCTCTATAC

10,115

ERBB4

ERBB4-202

ERBB4-202

CAGTATCTAAGCAATAACTCAATTCAAATGAATTGATGCACATTTTAATCAACCAACCAAGAAATATTTTATATTTAACACTAG  
GTCATAGATTTCGTTATTGAGTTAAGTTTACTTAACTACGTGTAAAATTAGTTGGTTGGTTTCTTTATAAAAATATAAATTGTGATC

10,200

ERBB4

ERBB4-202

ERBB4-202

AAAAATAGATAGACTTGGATAATTA AAAAATAATAATATATTTCTCTAGGATTAATTTACCTAAACTCTAAACAAATGGGCCTT  
TTTTTATCTATCTGAACCTATTAATTTTTTATTATTATATAAAGAGATCCTAATTAAGTGGATTTGAGATTTGTTTACCCGGAA

10,285

ERBB4

ERBB4-202

ERBB4-202

GGACTAGAGTGTATTATGTTTCCTCAGTAAAGCAAGGTAGCCTTTATTTTCATATCGACAGTCTGACATAAAGATAAAAGCTAGG  
CCTGATCTCACATAATACAAAGGAGTCATTTTCGTTCCATCGGAAATAAAAGTATAGCTGTCAGACTGTATTTCTATTTTCGATCC

10,370

ERBB4

ERBB4-202

ERBB4-202

TTTTAGAAGATACTTATTTCCATTTATTTTTTCCCAAAATTAGTTTTTCATGAACTGAAATTGTTTCCAAAAATTATGTAACCTT  
AAAATCTTCTATGAATAAAGGTAAATAAAAAAGGGTTTTAATCAAAAGTACTTGACTTTAACAAAGGTTTTTAATACATTGAAA

10,455

ERBB4

ERBB4-202

ERBB4-202

AAAAATATAGGAAAAATACTTAAGAAATAGACGAGGTGAGGAAGAGCATAACAAAGGTTTTTGGTGCTTTCTCACTCCTTTAC  
TTTTTATATCCTTTTTATGAATTCCTTATCTGCTCCACTCCTTCTCGTATTGTTTCCAAAACACAGAAAGAGTATGAGGAAATG

10,540

ERBB4

ERBB4-202

ERBB4-202

TCTATTTGCCACTTGCCTGTGAGTTTTGAATGCCCTACTTTGATAATGCAGTCAGTATGCTATAGAATAAAGTATAGACCCTA  
AGATAAACGGTGAACGTGACACTCAAACTTACGGGGATGAACTATTACGTGAGTCATACGATATCTTATTTTCATATCTGGGAT

10,625

ERBB4

ERBB4-202

ERBB4-202

TGGTCCTGATAATCCTACAGCATCAAACCAACCAAATAAACGTTGATAAATTGATCACCTTTTATTGTTTATTCTTAAAGTTGCA  
ACCAGGACTATTAGGATGTCGTAGTTTTGGTTGGTTTTATTTGCAACTATTTAACTAGTGGAAAAATAACAAATAAGAATTTCAACGT

10,710

ERBB4

ERBB4-202

ERBB4-202

ACCCATACACTATCTGGGCAATGAACAATTATTTTCAGACCTGAAATTGATTTTACCTCCCTAAAAACATCTTTTGATTTTGCTT  
TGGGTATGTGATAGACCCGTTACTTGTTAATAAAAAGTCTGGACTTTAACTAAAATGGAGGGGATTTTGTAGAAAACTAAAAACGAA

10,795

ERBB4

ERBB4-202

ERBB4-202

TATTATTCTCTAATGGCATTATCATATTCTCCTTGTATAAAGTTTGTTTACCTGGCCCTATCATTCTAAGCATGTTATAGGTT  
ATAATAAGAGATTACCGTAAATAGTATAAGAGGAACATATTTCAAACAAATGGACCGGGATAGTAAAGATTTCGTACAATATCCAA

10,880

ERBB4

ERBB4-202

ERBB4-202

TCTTAATGGCCGGTGGTTGTGCTAAAGACTTGTTTTTTAAAATGTGTGTATGAATTTTTCAACCATTTGTTATGATATTACATA  
AGAATTACCGGCCACCAACACGATTTCTGAACAAAAAAATTTTACACACATACTTAAAAAGTTGGTAAACAATACTATAATGTAT

10,965

ERBB4

ERBB4-202

ERBB4-202

AATTTATTGCAGAGACCACATATTTAAGATAAGAAAGAATCATATTTGTGTCTGATGGGCAATCTTTCTTTAGGGTGATGATCG  
TTAAATAACGTCTCTGGTGTATAAATTCTATTCTTTCTTAGTATAAACACAGACTACCCGTTAGAAAGAAAAATCCCACTACTAGC

11,050

ERBB4

ERBB4-202

ERBB4-202

990  
G D D R  
ENSE00001002...

TATGAAGCTTCCCAGTCCAAATGACAGCAAGTTCTTTTCAAGAAATCTTTGGATGAAGAGGATTTGGAAGATATGATGGATGCTGAG  
ATACTTCGAAGGGTCAGGTTTACTGTCGTTCAAGAAAGTCTTAGAGAACCTACTTCTCCTAAACCTTCTATACTACCTACGACTC

11,135

ERBB4

ERBB4-202

M K L P S P N D S K F F Q N L L D E E D L E D M M D A E

ENSE00001002878

ERBB4-202

GAGTACTTGGTCCCTCAGGCTTTCAACATCCCACCTCCCATCTATACTTCCAGAGCAAGAATTGACTCGAATAGGGTAAGAAATA  
CTCATGAACCAGGGAGTCCGAAAAGTTGTAGGGTGGAGGGTAGATATGAAGGTCTCGTTCTTAACTGAGCTTATCCCATTTCTTTAT

11,220

ERBB4

ERBB4-202

E Y L V P Q A F N I P P P I Y T S R A R I D S N R V R N

ENSE00001002878


ERBB4-202

ATTATATACACATATCATATTTCTTTCTGAGATATAAAAATCATGTAATAGTTCATAAGCACTAACATTTCAAATAATTATATAGC  
TAATATATGTGTATAGTATAAGAAAAGACTCTATATTTTAGTACATTATCAAGTATTCGTGATTGTAAAGTTTTATTAATATATCG

11,305

ERBB4

ERBB4-202

N Y I H I S Y S F   
----- (in frame with ERBB4-202) ----->

TCAAATCAATGTGATGCCTAGATTAAAAATATACCATACCCACAAAAGATGTGCCAATCTTGCTATATGTAGTTAATTTTGGAAAG  
AGTTTAGTTACACTACGGATCTAATTTTTATATGGTATGGGTGTTTTCTACACGGTTAGAACGATATACATCAATTA AACCTTC

11,390

ERBB4

ERBB4-202

ACAAGCATGGACAATACAACATGTACTCTGAAATACCTTCAAGATTTTCAGAAGCAAAACATTTTCCTCATCTTAATTTATTTAAA  
TGTTTCGTACCTGTTATGTTGTACATGAGACTTTATGGAAGTTCTAAAGTCTTCGTTTTGTAAAAGGAGTAGAATTAATAAATTT

11,475

ERBB4

ERBB4-202

ACAAATCTTAACTTTAAAAACAATTCCAAC TAATAAAACCATTATGTGTATATAAATAAATGAAAATTCCTACCAAGTAGGCTT  
TGTTTAGAATTGAAATTTTTTGTAAAGGTTGATTATTTTGGTAATACACATATATTTATTTACTTTTAAGGATGGTTCATCCGAA

11,560

ERBB4

ERBB4-202

TCTACTTTTCTTTCTTAAAAAGATATTATGATATATTAGTCAAGAAGTAATACAAGTATAAATCTCTTTCACTTATTTAAGAAAA  
AGATGAAAAGAAAAGATTTTTCTATAATACTATATAATCAGTTCTTCATTATGTTTCATATTTAGAGAAAAGTGAATAAATTTCTTTT

11,645

ERBB4

ERBB4-202

ATTAATATTTTCTGTCAAGTTGAAGTAGAAACACAGAAAACCGTGCAGTCCTTTGAACCTAATC  
TAATTTATAAAAGACAGTTCAACTTCATCTTTGTGTCTTTTGGCACGTCAGGAAACTTGGATTAG

3 '  
11,710  
5 '

ERBB4

ERBB4-202

| Feature                               | Location  | Size      | Color    | Symbol | Type            |
|---------------------------------------|---|-----------|----------|--------|-----------------|
| ✓ <b>ERBB4</b>                        | 1 .. 11,710   | 11,710 bp | Grey     | →      | gene            |
| /note                                 | = gene <a href="#">ENSG00000178568</a><br>Protein coding  |           |          |        |                 |
| <b>ERBB4-201</b>                      | 1 .. 11,710   | 11,710 bp | Grey     | →      | prim_transcript |
| /note                                 | = primary transcript <a href="#">ENST00000260943</a>  |           |          |        |                 |
| ✓ <b>ERBB4-202</b>                    | 1 .. 11,710   | 11,710 bp | Yellow   | →      | prim_transcript |
| /note                                 | = primary transcript <a href="#">ENST00000342788</a>  |           |          |        |                 |
| <b>ERBB4-203</b>                      | 1 .. 11,710   | 11,710 bp | Grey     | →      | prim_transcript |
| /note                                 | = primary transcript <a href="#">ENST00000402597</a>  |           |          |        |                 |
| <b>ERBB4-205</b>                      | 1 .. 11,710   | 11,710 bp | Grey     | →      | prim_transcript |
| /note                                 | = primary transcript <a href="#">ENST00000436443</a>  |           |          |        |                 |
| <b>ERBB4-201</b>                      | 551 .. 11,210   | 10,660 bp | Dark Red | →      | CDS             |
| ▶ 5 segments                          | = 648 bp  |           |          |        |                 |
| /note                                 | = coding sequence <a href="#">ENSP00000260943</a>   |           |          |        |                 |
| /translation                          | = GMMYLEERRLVHRDLAARNVLVKSPNHVKITDFGLARLLEGDEKEYNADGGK,,MPIKWMALECIHYRKFTHQSDVWSY,,GVTIWELMTFGGKPY<br>DGIPTREIPDLLEKGERLPQPPICTIDVYVMVVK,,CWMIDADSRPKFKELAAEFSRMARDPQRYLVIQ,,GDDRMKLPSPNDSKFFQNLLEEDLE<br>DMDAHEYLEBQAENLPRDYTSRARIDSNR |           |          |        |                 |
| ✓ <b>ERBB4-202</b>                    | 551 .. 11,210   | 10,660 bp | Dark Red | →      | CDS             |
| ▶ 5 segments                          | = 648 bp  |           |          |        |                 |
| /note                                 | = coding sequence <a href="#">ENSP00000342235</a>   |           |          |        |                 |
| /translation                          | = GMMYLEERRLVHRDLAARNVLVKSPNHVKITDFGLARLLEGDEKEYNADGGK,,MPIKWMALECIHYRKFTHQSDVWSY,,GVTIWELMTFGGKPY<br>DGIPTREIPDLLEKGERLPQPPICTIDVYVMVVK,,CWMIDADSRPKFKELAAEFSRMARDPQRYLVIQ,,GDDRMKLPSPNDSKFFQNLLEEDLE<br>DMDAHEYLEBQAENLPRDYTSRARIDSNR |           |          |        |                 |
| <b>ERBB4-203</b>                      | 551 .. 11,210   | 10,660 bp | Dark Red | →      | CDS             |
| ▶ 5 segments                          | = 648 bp  |           |          |        |                 |
| /note                                 | = coding sequence <a href="#">ENSP00000385565</a>   |           |          |        |                 |
| /translation                          | = GMMYLEERRLVHRDLAARNVLVKSPNHVKITDFGLARLLEGDEKEYNADGGK,,MPIKWMALECIHYRKFTHQSDVWSY,,GVTIWELMTFGGKPY<br>DGIPTREIPDLLEKGERLPQPPICTIDVYVMVVK,,CWMIDADSRPKFKELAAEFSRMARDPQRYLVIQ,,GDDRMKLPSPNDSKFFQNLLEEDLE<br>DMDAHEYLEBQAENLPRDYTSRARIDSNR |           |          |        |                 |
| <b>ERBB4-205</b>                      | 551 .. 11,210   | 10,660 bp | Dark Red | →      | CDS             |
| ▶ 5 segments                          | = 648 bp  |           |          |        |                 |
| /note                                 | = coding sequence <a href="#">ENSP00000403204</a>   |           |          |        |                 |
| /translation                          | = GMMYLEERRLVHRDLAARNVLVKSPNHVKITDFGLARLLEGDEKEYNADGGK,,MPIKWMALECIHYRKFTHQSDVWSY,,GVTIWELMTFGGKPY<br>DGIPTREIPDLLEKGERLPQPPICTIDVYVMVVK,,CWMIDADSRPKFKELAAEFSRMARDPQRYLVIQ,,GDDRMKLPSPNDSKFFQNLLEEDLE<br>DMDAHEYLEBQAENLPRDYTSRARIDSNR |           |          |        |                 |
| ✓ <b>Donor Template SNV -&gt; REV</b> | 7344 .. 7443  | 100 bp    | Cyan     | ⊢      | misc_feature    |
| ✓ <b>PAM</b>                          | 7403 .. 7405  | 3 bp      | Yellow   | ⊢      | misc_feature    |
| ✓ <b>Protospacer Sequence</b>         | 7406 .. 7425  | 20 bp     | Red      | ⊢      | misc_feature    |
| ✓ <b>SNV</b>                          | 7410 .. 7410  | 1 bp      | Yellow   | ⊢      | misc_feature    |
| /note                                 | = REV = G<br>SNV = A  |           |          |        |                 |

| Primer  | Length  | Binding Sites | Tm   | Date Added   |
|---|---------|---------------|------|--------------|
| ✓ <b>PCR Forward</b>  | 25-mer  | 6898 .. 6922  | 57°C | Jan 18, 2023 |
| /sequence = CTGGAAGCCTTTTATAGCAAAGATG<br>40% GC / 7705.1 Da   |         |               |      |              |
| ✓ <b>Donor Template SNV -&gt; REV</b>   | 100-mer | 7344 .. 7443  | 72°C | Jan 18, 2023 |
| /sequence = ATATAGGAGTTACTATATGGGAACTGATGACCTTTGGAGGAAAACCCTATGATGGAATTCCAACGCGAGAAATCCCTGATTATTAGAGAA<br>ACGAGGAACG,082.3 Da |         |               |      |              |
| ✓ <b>gRNA Protospacer</b>   | 20-mer  | 7411 .. 7425  | 43°C | Jan 18, 2023 |
| /sequence = AAATCAGGGATTTCTTGCCT<br>40% GC / 6147.1 Da  |         |               |      |              |
| ✓ <b>Sanger Sequencing</b>  | 21-mer  | 7483 .. 7503  | 53°C | Jan 18, 2023 |
| /sequence = GTCTTACATTTGACCATGACC<br>43% GC / 6356.2 Da   |         |               |      |              |
| ✓ <b>PCR Reverse</b>  | 25-mer  | 7956 .. 7980  | 59°C | Jan 18, 2023 |
| /sequence = CTTGTCCTGCTAATTTGCTCCTGAC<br>48% GC / 7550.0 Da   |         |               |      |              |