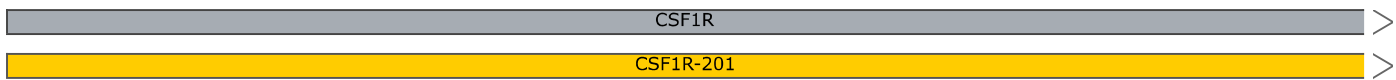


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5'  
3'

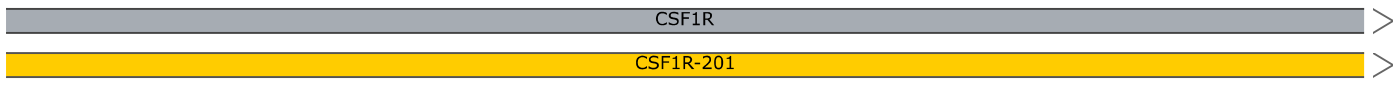
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85



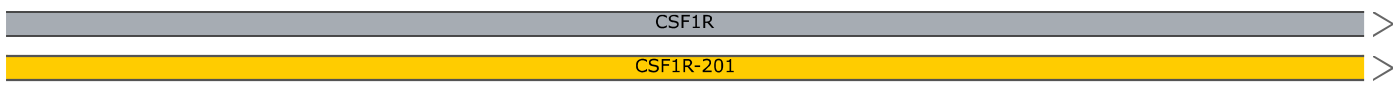
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170



CAAGTACCAGGTCCGCTGGAAGATCATCGAGAGCTATGAGGGCAACAGTTATACTTTTCATCGACCCACGCAGCTGCCTTACAAC  
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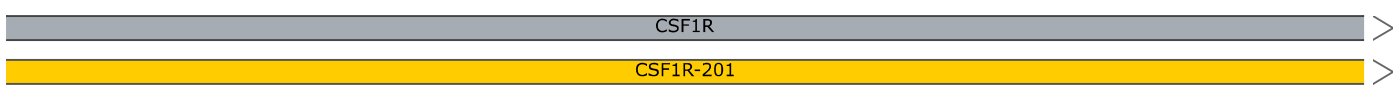
255



545 K Y Q V R W 550 K I I E S Y 555 E G N S 560 Y T F I D P T Q L 570 P Y N  
ENSE00003547588  
CSF1R-201

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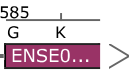
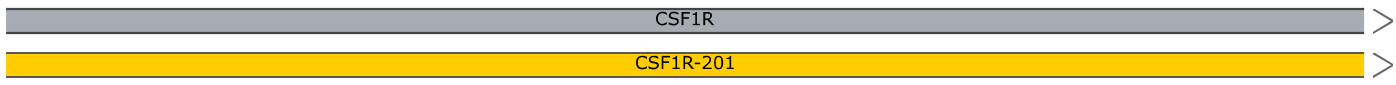
340



575 E K W E F P R 580 N N L Q F  
ENSE00003547588  
CSF1R-201

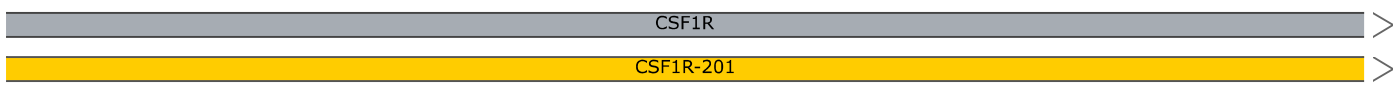
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425



CCCTCGGAGCTGGAGCCTTTGGGAAGGTGGTGGAGGCCACGGCCTTTGGTCTGGGCAAGGAGGATGCTGTCCTGAAGGTGGCTGT  
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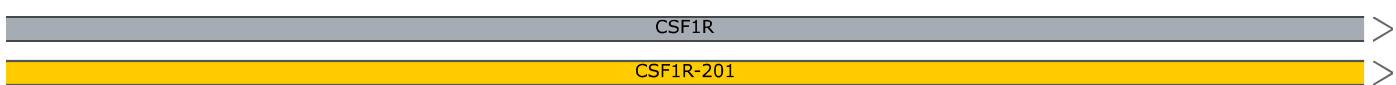
510



590 T L G A G A F G 595 K V V E A 600 T A F G L G 605 K E D A 610 V L K V A V 615  
ENSE00003595569  
CSF1R-201

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CTTCTACGACTTCACACTCACTCCCCTCCCCTACTCCCTTCCCTACCCCCACCATCTACGACCCCCACCCGACCGGGACACAG

595



K M L K  
ENSE00003595569  
CSF1R-201

ACAAGAGGCATCACACACATTTCAACCTGTTGAAGCCTGGGGGACAGAGCTCAGGGGTGAGGACTTGGGTTTTCTTGTGAGCTCC  
TGTTCCTCCGTAGTGTGTGTAAGTTGGACAACCTTCGGACCCCTGTCTCGAGTCCCCACTCCTGAACCCAAAAGAACACTCGAGG

680

CSF1R

CSF1R-201

CSF1R-201

AGGCACCCTCTGACTCCCGGCTCCAAGAAGGTCTAGGTCACCCCTTTAGTTGTGAAGGGGCTCCTGACTGAGCTCCAAAAAGTCTG  
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765

CSF1R

CSF1R-201

CSF1R-201

GGGGTGCAGAAAGGCCACCTATGGCCATGGCCTGGCCACAGTTTGGCTTCTGTACCTGAAGACCAGCTCAGTGACAGGCTCAT  
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850

CSF1R

CSF1R-201

CSF1R-201

CCCTCCTCTCTCTCTCTGCCATCTGTGTGTCTGCATTTTTCTTCTCCTTCTTTTTGGCTTCTGGTCACTCCGGGTCTTGGGGT  
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935

CSF1R

CSF1R-201

CSF1R-201

ATGCCCTGCTTTCTCCCTGGGTCTCTGCATTTGGTCCCATGTATCTGTGTGGTGTCTCTGTCTGCTCCCTCTCCCTGTCTTTG  
TACGGGACGAAAGAGGGGACCCAGAGACGTAAACCAGGGGTACATAGACACACCACGAGAGACAGGACGGGAGAGGGGACAGAAAC

1020

CSF1R

CSF1R-201

CSF1R-201

GGACTGTGGTTCTTCTCCAGCCACGGCCCATGCTGATGAGAAGGAGGCCCTCATGTCCGAGCTGAAGATCATGAGCCACCTGG  
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1105

CSF1R

CSF1R-201

620 S T A H A D E K E A 625 630 L M S E L K I M S H L 640

ENSE00003586812

CSF1R-201

GCCAGCACGAGAACATCGTCAACCTTCTGGGAGCCTGTACCCATGGAGGTAAGGGCCTTGGGGTTCCTGGGGCCAAGGTCTTGGG  
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1190

CSF1R

CSF1R-201

645 G Q H E N I V N L 650 L G A C T 655 G H G

ENSE00003586812

CSF1R-201

GCCTCTGGGGGAATCTCAGGGCCCCAGGGCTACCTTGTTCGCTCTTCTCCTTCTCAGGATCCTACTGCTCCAAGTGTCAAGGGGGAT  
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1275

CSF1R

CSF1R-201

CSF1R-201

CCCGGTCACAGCATCCCTTAAACTCCTGGGCCCATCTCCTGGAATAGTCAGGAGCTGCACGGGCAGCTTGAGGTATAAAGAGAGA  
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1360

CSF1R

CSF1R-201

CSF1R-201

CTGATAGGGAGCATCGGAGCCCTTGGAGGAGGAGATGAATGTGCAAGCTCCTAGGCCCTGCTTCCAGGGAGCCGGATCCTCTGGG  
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1445

CSF1R

CSF1R-201

CSF1R-201

TCTGGAGTGAAGCCCCCGCCTACCTCTTATGAAGCTTCCATTCAAGGATGCTTGGACACTCTCCCCAGGGCCCCCAAAGGTGCC  
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1530

CSF1R

CSF1R-201

CSF1R-201

CCGGGCTTTGCTGGGACTCCAAGTGCCCCACATCCTCTTCACTGATAGCAGCTCTGACCTACAGTGAGCCGCCATAGCTTTTCCTT  
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1615

CSF1R

CSF1R-201

CSF1R-201

TGAAGAAATAATTCTTGGGCTACATTTTTTTTTAAGGTTGTCTTTTTTTTTTCATTTTTTGTTTTTTTTTCTTGAGACGGAGCCT  
ACTTCTTTATTAAGAACCCTGATGTAATAAATAATTCCAACAGAAAAAAAAAAGTAAAAAAAAAAAAAAAAAAGAACTCTGCCTCGGA

1700

CSF1R

CSF1R-201

CSF1R-201

CACTCTGTCACCCAGGCTGGAGTGCAGTGGTGGGATCTCGGCTCACTGCAACCTCTGCCTCCCAGGTTCAAGCAATTCTCCTGCC  
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1785

CSF1R

CSF1R-201

CSF1R-201

TCAACCTCCTGAGTAGTTGGAACCTACAGGCACATGCCACCATGCCCGGCTGATTTTTTTGTATTTTTGTAGAGATGGGGTTTTAC  
AGTTGGAGGACTCATCAACCTTGATGTCCGTGTACGGTGGTACGGGCCGACTAAAAAACATAAAAAACATCTCTACCCCAAAGTG

1870

CSF1R

CSF1R-201

CSF1R-201

CATGTTAGCCAGGATGGTCTCGATCTCCTGACCTCGTGATCCACCCACCTTGGCCTCCCAAAGTGCTGAGATTACAGGCATGAGC  
GTACAATCGGTCTACCAGAGCTAGAGGACTGGAGCACTAGGTGGGTGGAACCGGAGGGTTTCACGACTCTAATGTCCGTA

1955

CSF1R

CSF1R-201

CSF1R-201

CACCGTGCCCCGCCAAAGCCATCTGTTTTAAACAAATGGAACCTACTGAGGCACAAGGAACTTGCTCACAGAGCCGAGGTTAGAA  
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2040

CSF1R

CSF1R-201

CSF1R-201

CTCAGCTATGCTGAGTCCAAGTCCAGTGGCCTCACTGCCCCAGTCTCATGCTCCTGTTTCATGGAGGGGAGCACTCAGCACCTCC  
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2125

CSF1R

CSF1R-201

CSF1R-201

CTCACCCACACCCCTTGCTGCTCTAGGCCCTGTA

2210

CSF1R

CSF1R-201

G P V 660 V I T E 665 Y C C Y G 670 D L L N F 675 L R

ENSE00001023096

CSF1R-201

AAGGAAGGCTGAGGCCATGCTGGGACCCAGCCTGAGCCCCGGCCAGGACCCGAGGGAGGCGT

2295

CSF1R

CSF1R-201

R K A 680 E A M L G 685 S L S P G Q D P E 695 G G V D Y 700 K N I H L

ENSE00001023096

CSF1R-201

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2380

CSF1R

CSF1R-201

705 E K K Y V R 710 R

ENSE00001023096

CSF1R-201

AGCCAGCTCAGGGTTGGATGGCTCATGAATGGGTGGCTATGCAGCCCTCACCTGCCACCTGTGTCATGGGAAGTAGCCACCACAG  
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2465

CSF1R

CSF1R-201

CSF1R-201

GTTTTATGGCCATCTCTTGTCTCTACTCCTTTTCCCCTTCATTCAACAAATATTTGAACACCTACCGTGTCTGGGAGTGTGG  
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2550

CSF1R

CSF1R-201

CSF1R-201

AGGGCAAAGATGGGCAGCTCATAATCTGGTGGAGATATGCATCAATGAAATCACCCACCCAGTGTGTGTAAGATCAACCAAGAT  
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2635

CSF1R

CSF1R-201

CSF1R-201

CTGTGCCTGGAGCCCTAGTAAGAGATGGGCAGATGTGGCCGGGTGCAGTGGCTCATGCCTGTAATCCCAGCACTTTGGGAGGCTG  
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2720

CSF1R

CSF1R-201

CSF1R-201

AGGCGGGCAGATCACCTGAGGATGGGAGTTCGAGACCAGCCTTACCAACAAGGTGAAACCCCGTCTCTATTAAATATACAAAATT  
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2805

CSF1R

CSF1R-201

CSF1R-201

AGCCGGGCGTGGTGGCGCATGCCTATAATCCCAGCTACTCGGGAGGCTGAGGCGGGAGAATTGCTTGAACCCAGGAGGCAGAGGT  
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2890

CSF1R

CSF1R-201

CSF1R-201

TGCTGTGAGCTGAGATCACACCATTGCACTCCAGCCTGGGCAACAAGAATGAAACTCCGTCTCAAAAAAAAAAGAGAGATGGCTCT  
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2975

CSF1R

CSF1R-201

CSF1R-201

GTTGTCCTGTTGCTGTGATTCTGGAAGCCATCCAGAACAGAGCCATCCAACAGACAGAGCCACATGGGGAAACCAAAGAGAGGAA  
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3060

CSF1R

CSF1R-201

CSF1R-201

GTGGGGAGATTCATGTCACACATGAGTCAGGGTTAGAGGTGGAGCCTGGACTAGAATCCTGCTCTCTTGACTTCCAGTCCAGGAG  
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3145

CSF1R

CSF1R-201

CSF1R-201

TCACCCAAGCCACACTGCTGTCTCGGAGGTCTCTGTCTCAGGGGCTTGTGGGGTCAGGACAGGATCAGAACAAGAAGGGTGTACA  
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3230

CSF1R

CSF1R-201

CSF1R-201

CTGCGCCCTCATCCTAGATACTGTCAGCTGCCACGCCTGGGGAGGCCAAAAGAGAAGGAGGCCATCTCTTACCCAGGGCCTTAAA  
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3315

CSF1R

CSF1R-201

CSF1R-201

AATGGGGGCCTGGCAGCATCACTTCTCTTCTGATTCCCTGACACTTCTATGAGGGTGGCACACACTAGGCCTCTGAAGATCAGA  
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3400

CSF1R

CSF1R-201

CSF1R-201

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3485

CSF1R

CSF1R-201

CSF1R-201

GGCAAATGGCCTGTAAACCAACTCTGTCAAAGGATTCCAGGCTGTTAACGGAAGCATAGTTTCTACAAGGGAGCGGAAGGTTTTT  
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3570

CSF1R

CSF1R-201

CSF1R-201

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3655

CSF1R

CSF1R-201

CSF1R-201

ATCCTATCTGGCTGGAACGTTAGGAGCAGTAGTGCTTCAGTCTACAGTAGTGCTTCTCAAATTCTCTACCCCAAGTGTGCTCTCA  
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3740

CSF1R

CSF1R-201

CSF1R-201

TAGGCATCTCTTGAGGACTGTTGGAAGTGCACCACCTCAGGCCATCCACCCAGGCCTGCTGATTCAAAATCTGCATTGCAGAGA  
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3825

CSF1R

CSF1R-201

CSF1R-201

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3910

CSF1R

CSF1R-201

CSF1R-201

TGATCACCTGGGGAGATTTAAATCTGTGAATGACTGTTTTGTCCCTAGAGTTTCTGAAGTATTAGTAATTAGCCTGATCCTAAAA  
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3995

CSF1R

CSF1R-201

CSF1R-201

GCTCCCGAAGTGATTTTAAATGTGAAGCCAGGGGTGTGAGGCACTGTCCAGAGAAGAGAGGGCACAAGGGGCCCTAGAATATGCC  
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4080

CSF1R

CSF1R-201

CSF1R-201

CAATTCTAGTAGGGCTGTTATGGGGAAGAGGACTCCAACCTTCTCTGTGGCCCTTGAGGGTAGAGCAGGGGCTAGGAGGAAAATCT  
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4165

CSF1R

CSF1R-201

CSF1R-201



CAGGGGTAGATTGGCATTAGGAACAGTGAAGAAGCTTTCTCACAGGCAGAGCTGCCCAAAACAGAAATGGGTTGTAAGCTCCCTCA  
GTCCCATCTAACCGTAATCCTTGTCACTTCTTGAAAGAGTGTCCGTCTCGACGGGTTTTGGTCTTACCCAACATTTCGAGGGAGT

4250

CSF1R

CSF1R-201

CSF1R-201

CCGGGGACAGCCGAGCAGAGACCAATGCTCACTCAGATGGAGTGTGGCAGGAGGGTTTTCTTATCAGAAAGGGAGGTTCCAGTTGA  
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4335

CSF1R

CSF1R-201

CSF1R-201

CCATGGGGTGGTGGGTGGTCAAGGCCTGAGCTGAGCAGTGCAGTGATGATGAGTGACCTCTGCCCCCAACCCCTCTCTCCTATGT  
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4420

CSF1R

CSF1R-201

CSF1R-201

AGGGACAGTGGCTTCTCCAGCCAGGGTGTGGACACCTATGTGGAGATGAGGCCTGTCTCCACTTCTTCAAATGACTCCTTCTCTG  
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4505

CSF1R

CSF1R-201

ENSE00003582642  
CSF1R-201

D S G F S S Q G V D T Y V E M R P V S T S S N D S F S

AGCAAGGTGAGGAGGTTCCAGGGCCAGGCCCATTTGCTTGATAACAAGGGAAAAGGAGAAGGGGCTGCTGGGGTGAGGGGTGGG  
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4590

CSF1R

CSF1R-201

740  
E Q

ENSE0...

CSF1R-201

GAGTGTGGCAGGGCTGCCCTGACGCCTTCCCACCTAGACCTGGACAAGGAGGATGGACGGCCCTGGAGCTCCGGGACCTGC  
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4675

CSF1R

CSF1R-201

ENSE00003499486  
CSF1R-201

D L D K E D G R P L E L R D L

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AAGTGAAGAGGTCGGTTCATCGGGTCCCGTACCGGAAGGAGCGAAGGTTCTTACACTCATCTTGGACCGGGACCGAGTATCGGT

4760

CSF1R

CSF1R-201

L H F S S Q V A Q G M A F L A S K N

ENSE00003499486

CSF1R-201

CCCAGGTCTGTGCTCCGGGGAGGGCTGGATGAGTGACGATGGGGAGGAGGAAACGGGAGCCTGTGAGGGGGTAGGGGAGGAGACAG  
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4845

CSF1R

CSF1R-201

CSF1R-201

AGTATGAGAGAGTCATTTGGGCAGCAGCTGCAAGGATGAGTGGGAGAAAGCTGTGCCAGGGCTGGAGCTCTGGGGCTGGGCACC  
TCATACTCTCTCAGTAAACCCGTCGTCGACGTTCTACTCACCCCTCTTTCGACACGGGTCCCGACCTCGAGACCCCGACCCGTGG

4930

CSF1R

CSF1R-201

CSF1R-201

TGTGTCCCCAGCGTGAAGATGAGGAAGGGTACCAGGCTTTCTTCATTCGTTTTTACTAAATAGTGTATGAGAGACAACAGTTGTC  
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5015

CSF1R

CSF1R-201

CSF1R-201

TCTGCTCATAAAGCACGCGGTCTGGTGGGGATGATAACGGAAGCTTCCCTCAGAATTTTGGGGATATTAGATAACGTATAAAGTGC  
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5100

CSF1R

CSF1R-201

CSF1R-201

GCTCGGCCTAGGAAGAAGTGCCAGGGAATGGGAGCTCTTGCCATCTTCCCTTAGAACAGATTCGGGAGTCAGTGGTTTTGATTGTTG  
CGAGCCGGATCCTTCTTACGGTCCCTTACCCTCGAGAACGGTAGAAGGAATCTTGTCTAAGCCCTCAGTCACCAAACCTAACAAAC

5185

CSF1R

CSF1R-201

CSF1R-201

GCTCTGCCACCTGCTCCGTGACTTTAAGCAACTATTTAAATTCTGTGCCTCAGTTTCTACACCTATAAAAATGGGCATAACGATT  
CGAGACGGTGGACGAGGCACTGAAATTCGTTGATAAATTTAAGACACGGAGTCAAAGATGTGGATATTTTTACCCGTATTGCTAA

5270

CSF1R

CSF1R-201

CSF1R-201

PCR Forward

GAAAAAGGGTTCAATGTGTGCAGAG

GTTGAAAAGAAAAAGGGTTCAATGTGTGCAGAGTTTAGGGAAGGGCCTGGCAGATAGCAGCTGCTATGATCAGAAGTAACGGTAG  
CAACTTTTCTTTTTCCCAAGTTACACACGTCTCAAATCCCTTCCCGGACCGTCTATCGTCGACGATACTAGTCTTCATTGCCATC

5355

CSF1R

CSF1R-201

CSF1R-201

GGTTTGGAGACTGCTCTCTGCACGGAAGCCCTTCGCTTCTGGGGCCTGAGCAGACCAGTCAGAGGACAAAGGGTGAGAAGGGCCA  
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CCAAACCTCTGACGAGAGACGTGCCTTCGGGAAGCGAAGACCCCGGACTCGTCTGGTCAAGTCTCCTGTTTCCCACTCTTCCCGGT

5440

CSF1R

CSF1R-201

CSF1R-201

TGGCTGCTCAGGGTAATGGGGGTTTCTAAGCATTAAATGATCAGATCACGATACACATTCTCAGATCCTGGGCCTGGTAGAAGG  
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ACCGACGAGTCCCATTACCCCCAAAGATTTCGTAATTTACTAGTCTAGTGCTATGTGTAAGAGTCTAGGACCCGGGACCATCTTCC

5525

CSF1R

CSF1R-201

CSF1R-201

Sanger Sequencing

GTTCACTCCAGCAGGGACTC

TATAGACAAGGGTTTGTGGTAAAGGACCAAACTGTTGTTCACTCCAGCAGGGACTCCAAAGCCATGTGGGGCCCTCCCTGCCAT  
-----  
ATATCTGTTCCCAAACACCATTTCTGTTTTGACAACAAGTGAGGTCGTCCCTGAGGTTTCGGTACACCCCGGGAGGGACGGTA

5610

CSF1R

CSF1R-201

CSF1R-201

Donor Template WT -> SNV

AGGCTCAGGTAGGAGAAGGCCCAAGACTAACCTGCAGTGCTTTCCCTCAGTGCATCCACCGGGACGTGGCAG

CCTCCTCACCTCAGGCTCAGGTAGGAGAAGGCCCAAGACTAACCTGCAGTGCTTTCCCTCAGTGCATCCACCGGGACGTGGCAG  
-----  
GGAGGAGTGGAGTCCGAGTCCATCCTCTTCCGGGTTCTGATTGGGACGTCACGAAAGGGAGTCACGTAGGTGGCCCTGCACCGTC

5695

CSF1R

CSF1R-201

CSF1R-201

775 780  
C I H R D V A  
ENSE00003511616

Donor Template WT -> SNV

PAM

Protospacer Sequence

CCTGCACCGTC

gRNA Protospacer



GAAACCCAGCATCGTGGCTCCTGCGGGACTCGGCAGACCCCTCTGCCCTGACAGGCGCTCCTTTCTGGCTCTTCCCTCGTTTGTCTTTGGGTCGTAGCACCCGAGGACGCCCTGAGCCGTCTGGGAGACGGGGACTGTCCGCGAGGAAAGACCGAGAAGGGGAGCAAACAG

6205

CSF1R

CSF1R-201

CSF1R-201

GGGAGCAAACAG  
PCR Reverse

TCTGCTCAGTTGCTGTTACCTGTTACCCTCCTTTGTCAGTGTTCCTCCTTTGTCTGAAATCTACAGACCCTTGAAGATGCAGCAGACGAGTCAACGACAATGGACAATGGGAGGAAACAGTGACAAAGGGAGGAAACAGACTTTAGATGTCTGGGAACTTCTACGTCG

6290

CSF1R

CSF1R-201

CSF1R-201

AGACGAGTCAACG  
PCR Reverse

TCTCTACTACTAGGCTCTAGTAGAAAGAACTGCTATTTCCCGAGGACTAGGCACAAGGACTTGTACTCAGTTCTTAAATACGCTGAGAGATGATGATCCGAGATCATCTTTCTTGACGATAAAGGGCTCCTGATCCGTGTTTCTGAACATGAGTCAAGAATTTATGCGAC

6375

CSF1R

CSF1R-201

CSF1R-201

CTCCTATACCCTCATAACCACCTGACTGTCCACACTTTAACGATACACAGCTGAAGCTTTGGTCTGATTCCAAAGCCTGTGCAAGGAGGATATGGGAGTATTGGTGGACTGACAGGTGTGAAATTGCTATGTGTCGACTTCGAAACCAGACTAAGGTTTCGGACACGTTTC

6460

CSF1R

CSF1R-201

CSF1R-201

AATGTTTGGTGTGATAAGGCCTGGATAGAGGCTCACACCTTCTAAAGCCTAAGCCTGCCACACACTGGCTGGCACACAGGAAAGCTTACAAACCACACTATTCCGGACCTATCTCCGAGTGTGGAAGGATTTCCGGATTCGGACGGTGTGTGACCGACCGTGTGTCTTTCG

6545

CSF1R

CSF1R-201

CSF1R-201

ACCGGGTAAGAGTAGCTGCTGTTGCAGTGTGTCAAGTGGGACCCTTTAAACCCAGTCTAAGATGTGTGTTGGGTGTGCGGGAATGTGGCCATTCTCATCGACGACAACGTCACAACAGTTCACCCTGGGAAATTTGGGTCAGATTCTACACACACCCACACGCCCTTAC

6630

CSF1R

CSF1R-201

CSF1R-201

GGGAGAAGACAATGGGCATGGCCTCTTACCTGATCTTGGCCTTTGCAGGGCTGAATCCCTACCCTGGCATCCTGGTGAACAGCAACCTCTTCTGTTACCCGTACCCGAGAAATGGACTAGAACCGGAAACGTCCCGACTTAGGGATGGGACCGTAGGACCACTTGTCTGTT

6715

CSF1R

CSF1R-201

CSF1R-201

855 860  
G L N P Y P G I L V N S K  
ENSE00003691987

GTTCTATAAACTGGTGAAGGATGGATACCAAATGGCCAGCCTGCATTTGCCCAAAGAATATGTAAGCGAAGGGATCCCAGGGA  
CAAGATATTTGACCACTTCTACCTATGGTTTACCGGGTCGGACGTAACCGGGGTTTCTTATACATTCGCTTCCCTAGGGTCCCT

6800

CSF1R

CSF1R-201

865 870 875 880 885  
F Y K L V K D G Y Q M A Q P A F A P K N I

ENSE00003691987

CSF1R-201

GGGAAAAGGACACCCAGGCTTTTCGCTGGAAAGGGATGGAAGGCCGTGTGGCCCTGATCTTTCCCTGTCCAAAATGTTCCAGGGT  
CCCTTTTCTGTGGGGTCCGAAAGCGACCTTTCCCTACCTTCCGGCACACCGGGACTAGAAAGGGACAGGTTTTACAAGGTCCCA

6885

CSF1R

CSF1R-201

CSF1R-201

CAGACTTTATCTCTCCCATAGTGGACACAACAAGCCCTTTTGAGTTCAAGCTATGGGGGATGTTCTCAGAGAAGCAGCTGTTCA  
GTCTGAAATAGAGAGGGTATCACCTGTGTTGTTTCGGGGAAAACCTCAAGTTTCGATACCCCTACAAGAGTCTCTTCGTCGACAAGT

6970

CSF1R

CSF1R-201

CSF1R-201

CTAGGGCTGGTCCTAACCGACCACTTTTCCTTTTTTTTTTTTTTTTTTTTTTTGAGACAGCATCTTGCTCTGTAGCCCGGGCTGGAG  
GATCCCGACCAGGATTGGCTGGTGAAAAGGAAAAAAAAAAAAAAAAAAAAAACTCTGTCGTAGAACGAGACATCGGGCCCCGACCTC

7055

CSF1R

CSF1R-201

CSF1R-201

CGCAGTGATGTGTGCAATCATAGCTCACTGCAGCCTCAATCTTCAGGGCTCAAGCAATCCTTTGGCCTCAGCCTCCCAAACAGCT  
GCGTCACTACACACGTTAGTATCGAGTGACGTCGGAGTTAGAAGTCCCGAGTTCGTTAGGAAACC GGAGTCGGAGGGTTTGTCTGA

7140

CSF1R

CSF1R-201

CSF1R-201

GGGACTACAGGTGTGCACCACCAAGCCCAGCTATTTTTAAAAAATTTTTTAGTAGAGATGGGATCTCACTATGTTGTCCAGGCTG  
CCCTGATGTCCACACGTGGTGGTTCGGGTCGATAAAAAATTTTTAAAAAATCATCTCTACCCTAGAGTGATACAACAGGTCCGAC

7225

CSF1R

CSF1R-201

CSF1R-201

GTCTGGAACCTCTGGCCTTATGCAATCCTCCTGCATCAACCTCCCAAAGTGTGGGATTACAGGAATGAGCCACTGCACCTGTCC  
CAGACCTTGAGGACCGGAATACGTTAGGAGGACGTAGTTGGAGGGTTTCAACAACCTAATGTCTTACTCGGTGACGTGGACAGG

7310

CSF1R

CSF1R-201

CSF1R-201

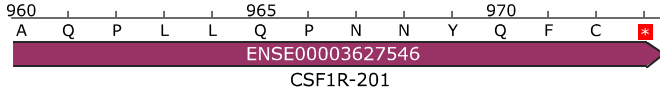


CCCAGCCCTTGCTGCAGCCCAACAACACTATCAGTTCTGCTGAGGAGTTGACGACAGGGAGTACCACTCTCCCCTCCCACAAACTTC  
GGGTCTGGGAACGACGTCGGGTTGTTGATAGTCAAGACGACTCCTCAACTGCTGTCCCTCATGGTGAGAGGGGAGGGTGTGTTGAAG

7990

CSF1R

CSF1R-201



AACTCCTCCATGGATGGGGCGACACGGGGAGAACATACAAACTCTGCCTTCGGTCATTTCACTCAACAGCTCGGCCAGCTCTGA  
TTGAGGAGGTACCTACCCCGCTGTGCCCTCTTGTATGTTTGGAGACGGAAGCCAGTAAAGTGAGTTGTGCGAGCCGGGTCGAGACT

8075

CSF1R

CSF1R-201

AACTTGGGAAGGTGAGGGATTGAGGGGAGGTCAGAGGATCCCACTTCTGAGCATGGGCCATCACTGCCAGTCAGGGGCTGGGGG  
TTGAACCTTCCACTCCCTAAGTCCCTCCAGTCTCCTAGGGTGAAGGACTCGTACCCGGTAGTGACGGTCAGTCCCCGACCC

8160

CSF1R

CSF1R-201

CTGAGCCCTCACCCCCCTCCCCTACTGTTCTCATGGTGTTGGCCTCGTGTGTTGCTATGCCAACTAGTAGAACCTTCTTTCTTA  
GACTCGGGAGTGGGGGGGAGGGGATGACAAGAGTACCACAACCGGAGCACAAACGATACGGTTGATCATCTTGGGAAGAAAGGAT

8245

CSF1R

CSF1R-201

ATCCCCTTATCTTCATGGAAATGGACTGACTTTATGCCTATGAAGTCCCCAGGAGCTACACTGATACTGAGAAAACAGGCTCTT  
TAGGGGAATAGAAGTACCTTTACCTGACTGAAATACGGATACTTCAGGGGCTCTCGATGTGACTATGACTCTTTTGGTCCGAGAA

8330

CSF1R

CSF1R-201

TGGGGCTAGACAGACTGGCAGAGAGTGAGATCTCCCTCTCTGAGAGGAGCAGCAGATGCTCACAGACCACACTCAGCTCAGGGCC  
ACCCCGATCTGTCTGACCGTCTCTCACTCTAGAGGGAGAGACTCTCCTCGTCTCTACGAGTGCTGGTGTGAGTCGAGTCCGGG

8415

CSF1R

CSF1R-201

CTTGAGCAGGATGGCTCCTCTAAGAATCTCACAGGACCTCTTAGTCTCTGCCCTATACGCCGCTTCACTCCACAGCCTCACCC  
GAACCTCGTCTACCGAGGAGATTCTTAGAGTGTCTTGAGAATCAGAGACGGGATATGCGGCGGAAGTGAGGTGTGCGGAGTGGG

8500

CSF1R

CSF1R-201

CTCCCACCCCATACTGGTACTGCTGTAATGAGCCAAGTGGCAGCTAAAAGTTGGGGGTGTTCTGCCAGTCCCGTCATTCTGGG  
GAGGGTGGGGGTATGACCATGACGACATTACTCGGTTCAACGTCGATTTTCAACCCCCACAAGACGGGTGAGGGCAGTAAGACCC

8585

CSF1R

CSF1R-201

CTAGAAGGCAGGGGACCTTGGCATGTGGCTGGCCACACCAAGCAGGAAGCACAAACTCCCCAAGCTGACTCATCCTAACTAACA  
GATCTTCCGTCCCCTGGAACCGTACACCGACCGGTGTGGTTCGTCTTCTCGTGTGTTGAGGGGGTTCGACTGAGTAGGATTGATTGT

8670

CSF1R

CSF1R-201



GTCACGCCGTGGGATGTCTCTGTCCACATTAAACTAACAGCATTAAATGCAGTCA  
-----  
CAGTGCGGCACCCCTACAGAGACAGGTGTAATTTGATTGTCGTAATTACGTCAGT

3'

8724

5'

CSF1R

CSF1R-201

Feature	Location	Size	Color	Symbol	Type
✓ <b>CSF1R</b>	1 .. 8724	8724 bp	Grey	→	gene
/note	= gene <a href="#">ENSG00000182578</a> Protein coding				
✓ <b>CSF1R-201</b>	1 .. 8724	8724 bp	Yellow	→	prim_transcript
/note	= primary transcript <a href="#">ENST00000286301</a>				
<b>CSF1R-203</b>	1 .. 8724	8724 bp	Grey	→	prim_transcript
/note	= primary transcript <a href="#">ENST00000504875</a> Nonsense mediated decay				
<b>CSF1R-210</b>	1 .. 8720	8720 bp	Grey	→	prim_transcript
/note	= primary transcript <a href="#">ENST00000675795</a>				
<b>CSF1R-206</b>	1 .. 2237	2237 bp	Grey	→	prim_transcript
/note	= primary transcript <a href="#">ENST00000513609</a> Retained intron				
<b>CSF1R-208</b>	1 .. 2237	2237 bp	Grey	→	prim_transcript
/note	= primary transcript <a href="#">ENST00000515239</a> protein_coding_CDS_not_defined				
✓ <b>CSF1R-201</b>	166 .. 7946	7781 bp	Red	→	CDS
▶ 11 segments	= 1293 bp				
/note	= coding sequence <a href="#">ENSP00000286301</a>				
/translation	= KPKYQVRWKIIESYEGNSYTFIDPTQLPYNEKWEFPRNNLQF,,GKTLGAGA FGKV VEATAFGLGKEDAVLKVAVKMLK,,STAHADEKEALMSELKIMSHLGQHENIVNLLGACTHG,,GPVLVITEYCCYGDLLNFLRRKAEAMLGSPSLSPGQDPEGVDYKNIHLEKKYVRR,,DSGFSSQGVDTYVEMRPVSTSSNDSFSEQ,,DLDKEDGRPLELRDLLHFSSQVAQGMAFLASKN,,CIHRDVAARNVLLTNGHVAKIGDFGLARDIMNDSNYIVKGN,,ARLPVKWMAPEsIFDCVYTVQSDVWSYGILLWEIFSL,,GLNPYPGILVNSKFYKLVKDGyQMAQPAFAFKNI,,YSIMQACWALEPThrPTFQqICsFLQEQAQQEDRRERDXTNLLSSRSRGGSGSSSSELEEESSSEHLTCCEQGDIAQPLLQPNNYQFC*				
<b>CSF1R-210</b>	166 .. 7946	7781 bp	Red	→	CDS
▶ 11 segments	= 1293 bp				
/note	= coding sequence <a href="#">ENSP00000501699</a>				
/translation	= KPKYQVRWKIIESYEGNSYTFIDPTQLPYNEKWEFPRNNLQF,,GKTLGAGA FGKV VEATAFGLGKEDAVLKVAVKMLK,,STAHADEKEALMSELKIMSHLGQHENIVNLLGACTHG,,GPVLVITEYCCYGDLLNFLRRKAEAMLGSPSLSPGQDPEGVDYKNIHLEKKYVRR,,DSGFSSQGVDTYVEMRPVSTSSNDSFSEQ,,DLDKEDGRPLELRDLLHFSSQVAQGMAFLASKN,,CIHRDVAARNVLLTNGHVAKIGDFGLARDIMNDSNYIVKGN,,ARLPVKWMAPEsIFDCVYTVQSDVWSYGILLWEIFSL,,GLNPYPGILVNSKFYKLVKDGyQMAQPAFAFKNI,,YSIMQACWALEPThrPTFQqICsFLQEQAQQEDRRERDXTNLLSSRSRGGSGSSSSELEEESSSEHLTCCEQGDIAQPLLQPNNYQFC*				
<b>CSF1R-207</b>	347 .. 5989	5643 bp	Grey	→	prim_transcript
/note	= primary transcript <a href="#">ENST00000515068</a> Nonsense mediated decay				
✓ <b>Donor Template WT -&gt; SNV</b>	5623 .. 5722	100 bp	Cyan	⊢	misc_feature
✓ <b>PAM</b>	5682 .. 5684	3 bp	Yellow	⊢	misc_feature
✓ <b>Protospacer Sequence</b>	5685 .. 5704	20 bp	Red	⊢	misc_feature
✓ <b>SNV</b>	5696 .. 5696	1 bp	Yellow	⊢	misc_feature
/note	= WT = C SNV = A				
<b>CSF1R-204</b>	7195 .. 8177	983 bp	Grey	→	prim_transcript
/note	= primary transcript <a href="#">ENST00000509861</a> Retained intron				

Primer	Length	Binding Sites	Tm	Date Added
✓ <b>PCR Forward</b> /sequence = GAAAAAGGGTTCAATGTGTGCAGAG 44% GC / 7819.2 Da	25-mer	5279 .. 5303	59°C	Jan 18, 2023
✓ <b>Sanger Sequencing</b> /sequence = GTTCACTCCAGCAGGGACTC 60% GC / 6078.0 Da	20-mer	5563 .. 5582	60°C	Jan 18, 2023
✓ <b>Donor Template WT -&gt; SNV</b> /sequence = AGGCTCAGGTAGGAGAAGGCCCAAGACTAACCTGCAGTGCTTTCCCTCAGTGCATCCACCGGGACGTGGCAGAGCGTAACGTGCTGT 56% GC / 5680.5 Da	100-mer	5623 .. 5722	81°C	Jan 18, 2023
✓ <b>gRNA Protospacer</b> /sequence = CGTTACGCGCTGCCACGTCC 70% GC / 6029.9 Da	20-mer	5685 .. 5704	65°C	Jan 18, 2023
✓ <b>PCR Reverse</b> /sequence = GCAACTGAGCAGAGACAAACGAGGG 56% GC / 7783.1 Da	25-mer	6194 .. 6218	63°C	Jan 18, 2023