

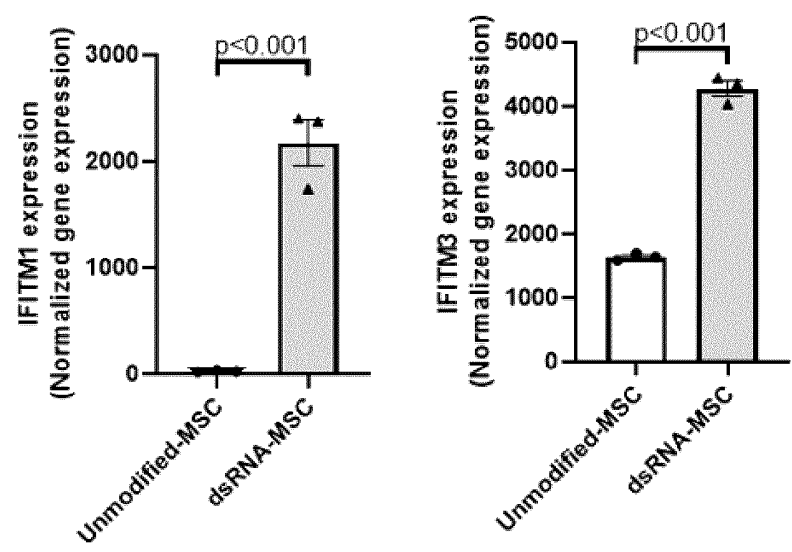


FIG. 1

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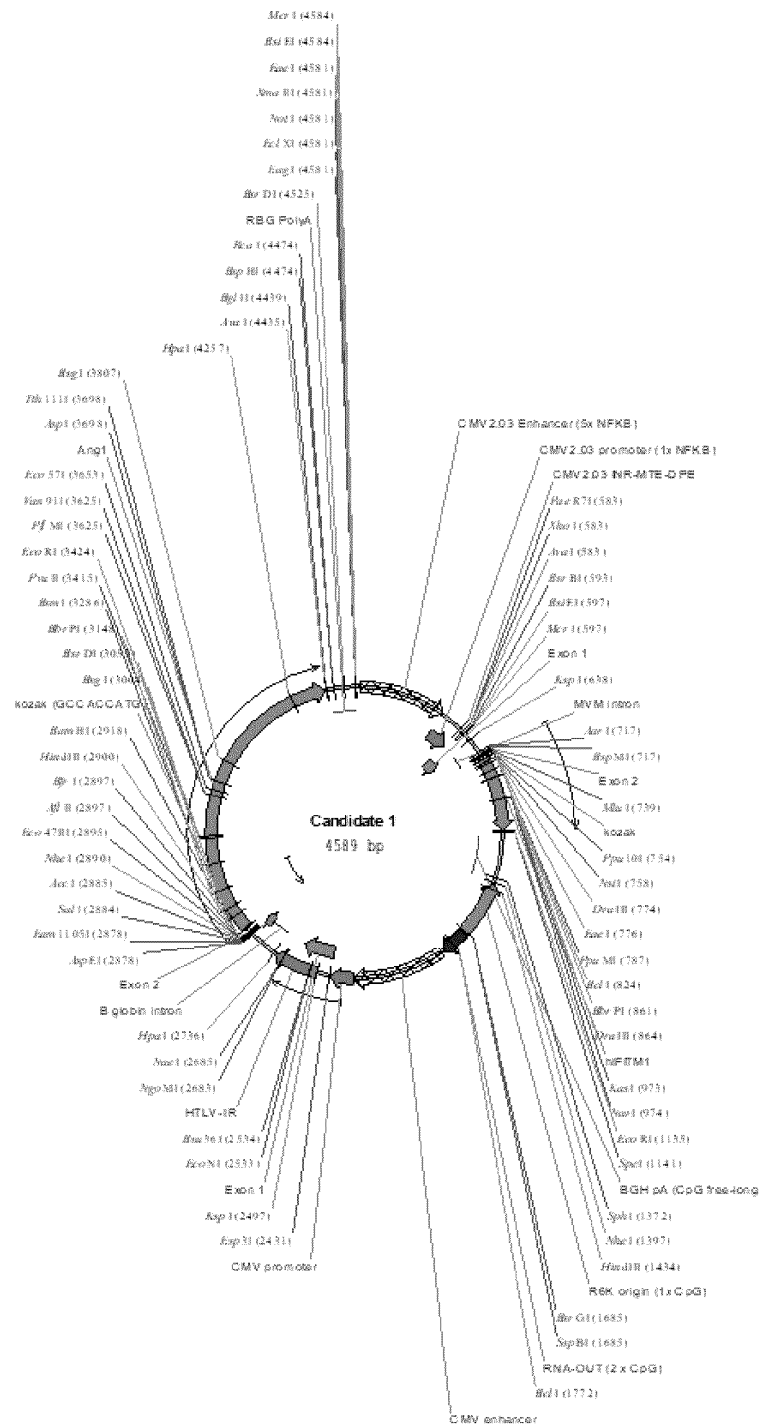


FIG. 2A

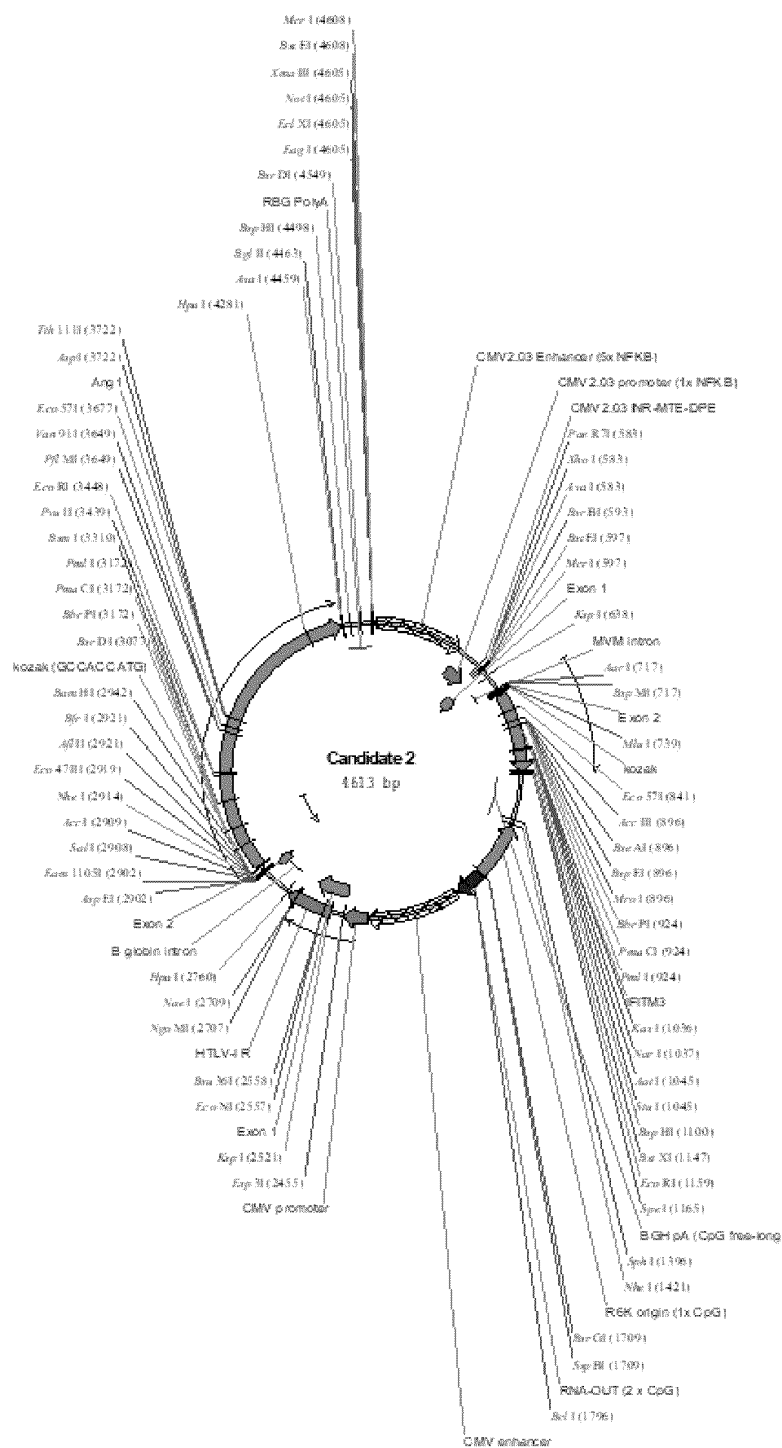


FIG. 2B

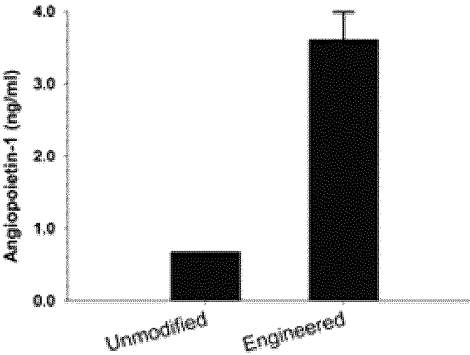


FIG. 3A

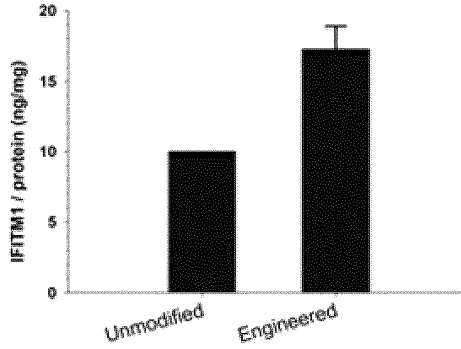


FIG. 3B

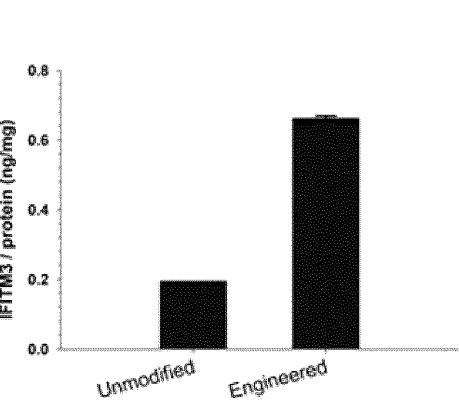


FIG. 3C

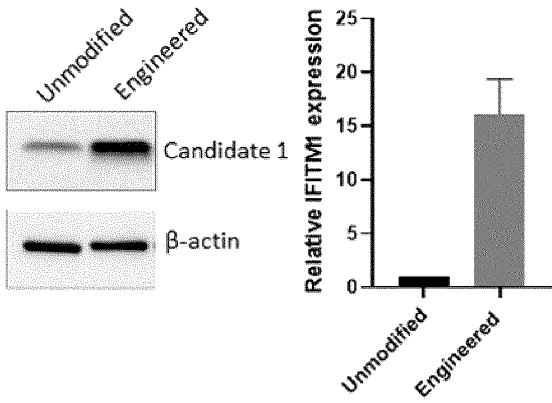


FIG. 3D

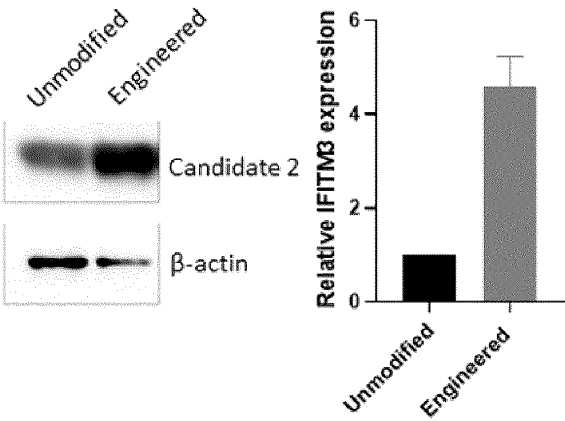


FIG. 3E

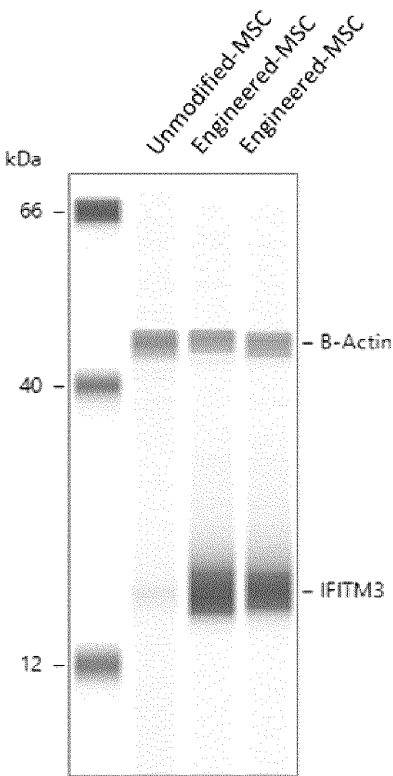


FIG. 3F

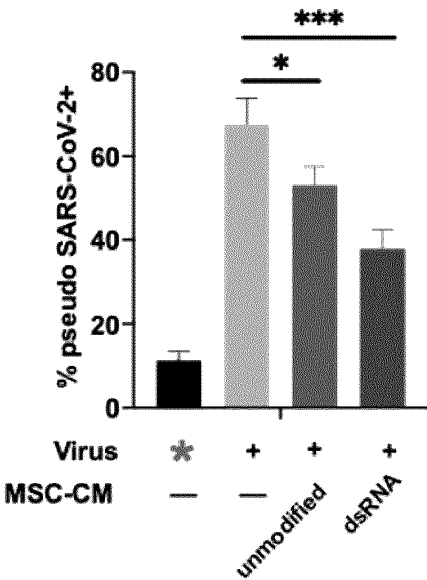


FIG. 4

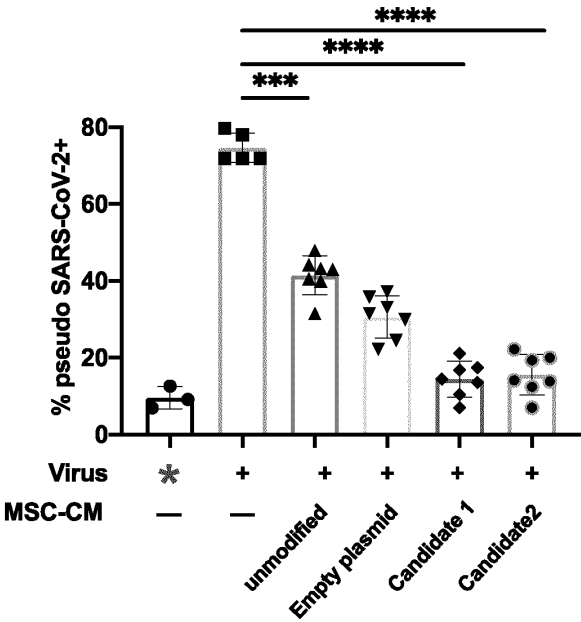


FIG. 5A

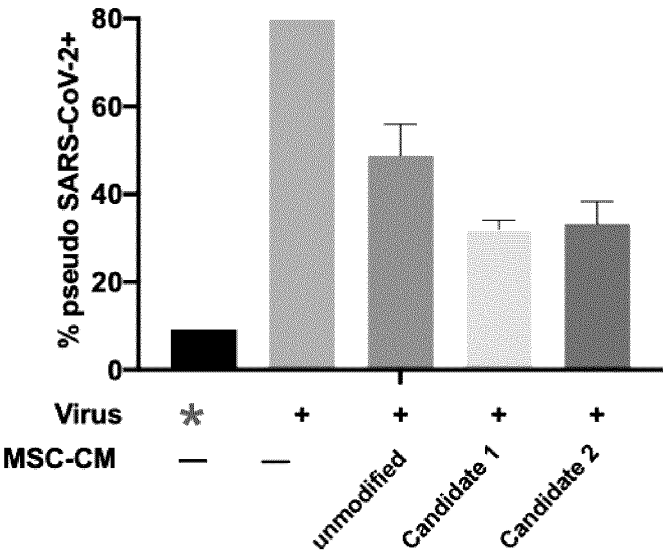


FIG. 5B

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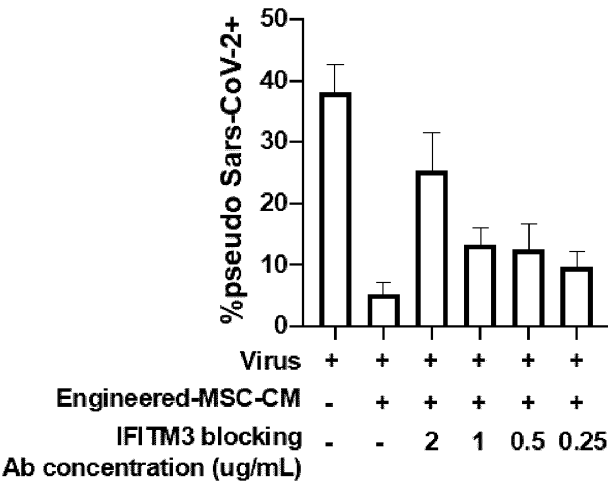


FIG. 5C

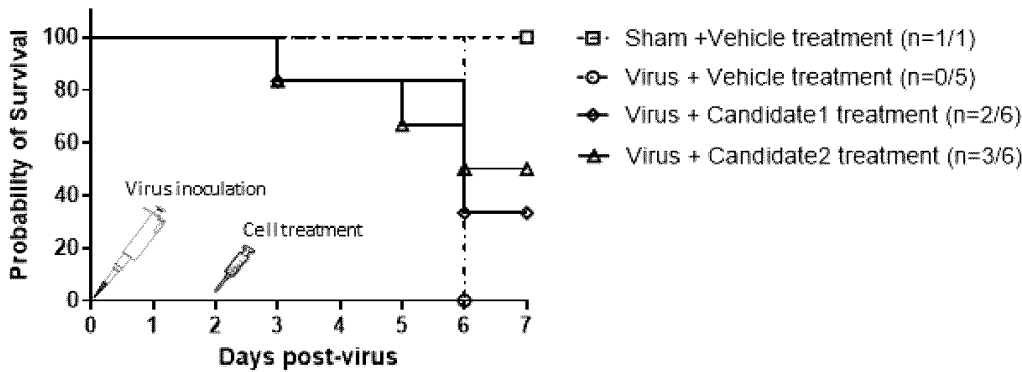


FIG. 6A

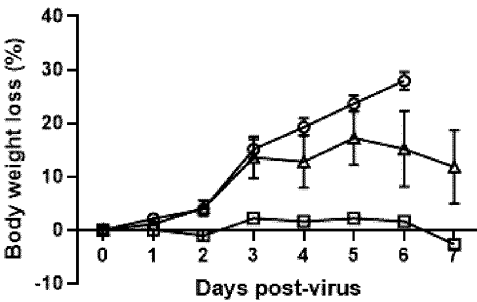


FIG. 6B

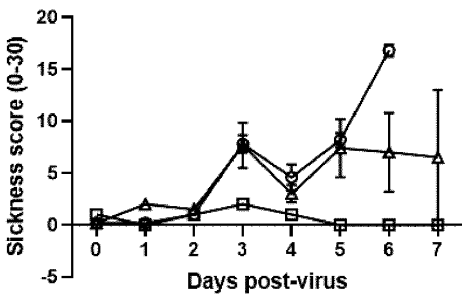


FIG. 6C

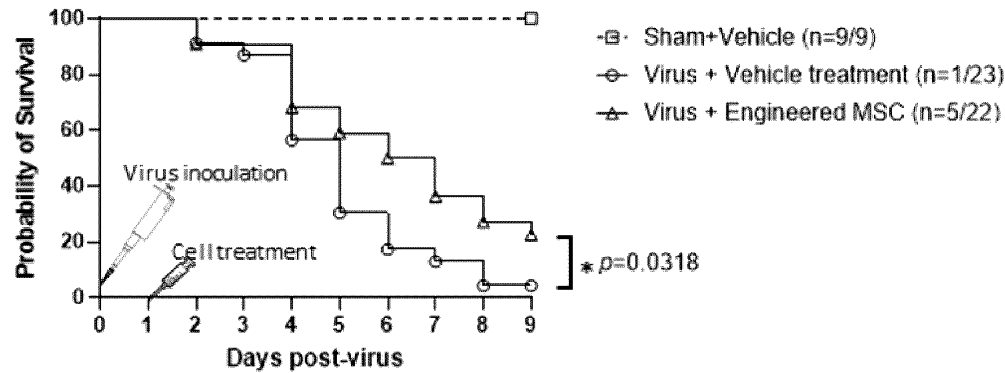


FIG. 7A

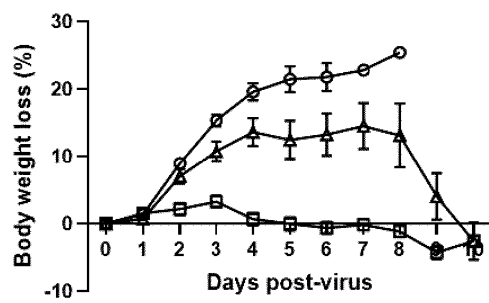


FIG. 7B

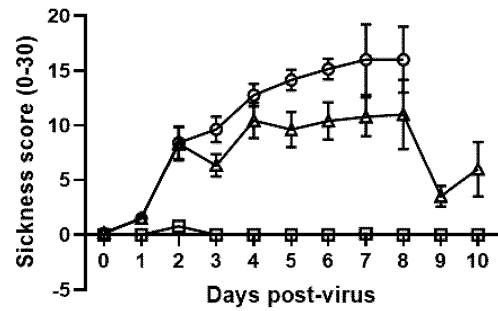


FIG. 7C

hIFITM1 – Human native nucleotide sequence

atgcacaag gaggaacatg aggtggctgt gctggggcca cccccagca ccatccttcc aaggtccacc
gtgatcaaca tccacagcga gacctccgtg cccgaccatg tcgtctggtc cctgttcaac accctcttct
tgaactggtg ctgtctgggc ttcatagcat tcgcctactc cgtgaagtct agggacagga agatggttgg
cgacgtgacc gggggcccagg cctatgcctc caccgccaag tgcctgaaca tctgggccct gattctgggc
atcctcatga ccattggatt catcctgtta ctggtattcg gctctgtgac agtctacat attatgttac
agataatata ggaaaaacgg ggttactag

FIG. 8A**hIFITM1 – Human codon-optimized sequence (378 bps):**

ATGCATAAGGAAGAACACGAGGTGGCCGTGCTGGGACCTCCACCTAGCACAAATTCT
GCCTAGAAGCACCGTGATCAACATCCACAGCGAGACAAGCGTCCCCGACCACGTGG
TGTGGTCCCTGTTCAACACCCTGTTCTGAACTGGTGCTGTCTGGGATTTATCGCCTT
CGCCTACAGCGTGAAAAGCAGAGATAGAAAGATGGTGGGCGACGTGACCGGCGCC
CAGGCTTATGCTTCTACCGCCAAGTGCCTGAATATCTGGGCCCTGATCCTGGGCATC
CTGATGACCATCGGCTTCATCCTCCTGCTGGTGTTCGGCTCTGTTACAGTGTACCACA
TCATGCTGCAAATCATCCAGGAGAAGCGGGGCTACTGA

FIG. 8B**hIFITM1 – Human protein sequence (125 a.a., ~14 kDa):**

MHKEEHEVAVLGPPPSTILPRSTVINIHSETSPDHVVWSLFNTLFLNWCCLGFIAFAYSV
KSRDRKMVGDTVGAQAYASTAKCLNIWALILGILMTIGFILLLVFGSVTVYHIMLQIIQE
KRGY

FIG. 8C

hIFITM3 – Human native nucleotide sequence

```
atg aatcacactg tccaaacctt cttctctcct gtcaacagtg gccagcccc caactatgag
atgctcaagg aggagcacga ggtggctgtg ctgggggcgc cccacaacct tgctcccccg acgtccaccg
tgatccacat ccgcagcgag acctccgtgc ccgaccatgt cgtctggtcc ctgttcaaca ccctcttcat
gaaccctgc tgctgggct tcatagcatt cgcctactcc gtgaagtcta gggacaggaa gatggttggc
gacgtgaccg gggcccaggc ctatgcctcc accgccaagt gcctgaacat ctgggcctg attctgggca
tcctcatgac cattctgctc atcgtcatcc cagtgtgat cttccaggcc tatggatag
```

FIG. 9A**hIFITM3 – Human codon-optimized sequence (402 bps):**

```
ATGAATCACACCGTGCAGACCTTTTTCAGCCCTGTGAACAGCGGCCAGCCTCCAAAC
TACGAGATGCTGAAGGAAGAACACGAGGTGGCCGTGCTGGGAGCCCCCTCATAATCC
TGCTCCTCTACCAGCACCGTGATCCACATCCGGAGCGAGACATCTGTCCCCGACCA
CGTGGTGTGGTCCCTGTTCAACACCCTGTTTATGAACCCCTGCTGTCTGGGCTTCATC
GCCTTCGCCTACAGCGTGAAAAGCAGAGATAGAAAGATGGTGGGCGACGTGACCGG
CGCCCAGGCCTACGCCTCTACAGCCAAGTGCCTGAACATCTGGGCCCCTGATCCTGGG
CATCCTCATGACAATCCTGCTGATCGTGATCCCCGTCCTGATTTTCCAAGCTTATGGC
TGA
```

FIG. 9B**hIFITM3 – Human protein sequence (133 a.a., ~15 kDa):**

```
MNHTVQTFSPVNSGQPPNYEMLKEEHEVAVLGAPHNPAPPTSTVIHIRSETSVDPHVV
WSLFNTLFMNPCCCLGFIAFAYSVKSRDRKMVGDTVGAQAYASTAKCLNIWALILGILM
TILLIVPVLIFQAYG
```

FIG. 9C

Angpt1 – Human native nucleotide sequence

```

      atg  acagttttcc  tttcctttgc  tttcctcgct  gccattctga  ctcacatagg  gtgcagcaat
cagcgccgaa  gtccagaaaa  cagtgggaga  agatataacc  ggattcaaca  tgggcaatgt  gcctacactt
tcattcttcc  agaacacgat  ggcaactgtc  gtgagagtac  gacagaccag  tacaacacaa  acgctctgca
gagagatgct  ccacacgtgg  aaccggattt  ctcttcccag  aaacttcaac  atctggaaca  tgtgatggaa
aattatactc  agtggctgca  aaaacttgag  aattacattg  tggaaaacat  gaagtcggag  atggcccaga
tacagcagaa  tgcagttcag  aaccacacgg  ctaccatgct  ggagatagga  accagcctcc  tctctcagac
tgcagagcag  accagaaaag  tgacagatgt  tgagaccag  gtactaaatc  aaacttctcg  acttgagata
cagctgctgg  agaattcatt  atccacctac  aagctagaga  agcaacttct  tcaacagaca  aatgaaatct
tgaagatcca  tgaaaaaac  agtttattag  aacataaaaat  cttagaaatg  gaaggaaaac  acaaggaaga
gttggacacc  ttaaaggaag  agaaagagaa  cttcaaggc  ttggttactc  gtcaaacata  tataatccag
gagctggaaa  agcaattaaa  cagagctacc  accaacaaca  gtgtccttca  gaagcagcaa  ctggagctga
tggacacagt  ccacaacctt  gtcaatcttt  gactaaaga  aggtgtttta  ctaaaggag  gaaaaagaga
ggaagagaaa  ccatttagag  actgtgcaga  tgtatatcaa  gctggtttta  ataaaagtgg  aatctacact
atztatatta  ataatatgcc  agaaccctaa  aagggttttt  gcaatatgga  tgtcaatggg  ggaggttgga
ctgtaataca  acatcgtaga  gatggaagtc  tagattttcca  aagaggctgg  aaggaatata  aaatgggttt
tggaaatccc  tccggtgaat  attggctggg  gaatgagttt  atttttgcca  ttaccagtca  gaggcagtac
atgctaagaa  ttgagttaat  ggactgggaa  gggaaccgag  cctattcaca  gtatgacaga  ttccacatag
gaaatgaaaa  gcaaaactat  aggttgattt  taaaagggtca  cactgggaca  gcaggaaaac  agagcagcct
gatcttacac  ggtgctgatt  tcagcactaa  agatgctgat  aatgacaact  gtatgtgcaa  atgtgccctc
atgttaacag  gaggatgggtg  gtttgatgct  tgtggccct  ccaatctaaa  tggaatgttc  tatactcgcg
gacaaaacca  tggaaaactg  aatgggataa  agtggcacta  cttcaaaggg  cccagttact  ccttacgttc
cacaactatg  atgattcgac  ctttagattt  ttga

```

FIG. 10A

Angpt1 – Human codon-optimized sequence (1497 bps):

ATGACAGTTTTCTTTCTTTGCTTTCTCGCTGCCATTCTGACTCACATAGGGTGCA
GCAATCAGCGCCGAAGTCCAGAAAACAGTGGGAGAAGATATAACCGGATTCAACAT
GGGCAATGTGCTTACACTTTTCATTCTTCCAGAACACGATGGCAACTGTCGTGAGAGT
ACGACAGACCAGTACAACACAAACGCTCTGCAGAGAGATGCTCCACACGTGGAACC
GGATTTCTCTTCCCAGAACTTCAACATCTGGAACATGTGATGGAAAATTATACTCA
GTGGCTGCAAAAACCTTGAGAATTACATTGTGGAAAACATGAAGTCGGAGATGGCCC
AGATACAGCAGAATGCAGTTCAGAACCACACGGCTACCATGCTGGAGATAGGAACC
AGCCTCTCTCTCAGACTGCAGAGCAGACCAGAAAGCTGACAGATGTTGAGACCCA
GGTACTAAATCAAACCTTCTCGACTTGAGATACAGCTGCTGGAGAATTCATTATCCAC
CTACAAGCTAGAGAAGCAACTTCTTCAACAGACAAATGAAATCTTGAAGATCCATG
AAAAAACAGTTTATTAGAACATAAAATCTTAGAAATGGAAGGAAAACACAAGGA
AGAGTTGGACACCTTAAAGGAAGAGAAAAGAGAACCTTCAAGGCTTGGTTACTCGTC
AAACATATATAATCCAGGAGCTGGAAAAGCAATTAACAGAGCTACCACCAACAAC
AGTGTCTTCAGAAGCAGCAACTGGAGCTGATGGACACAGTCCACAACCTTGTCAA
TCTTTGCACTAAAGAAGGTGTTTTACTAAAGGGAGGAAAAAGAGAGGAAGAGAAAC
CATTTAGAGACTGTGCAGATGTATATCAAGCTGGTTTTAATAAAAGTGGAATCTACA
CTATTTATATTAATAATATGCCAGAACCCAAAAAGGTGTTTTGCAATATGGATGTCA
ATGGGGGAGGTTGGACTGTAATACAACATCGTGAAGATGGAAGTCTAGATTTCCAA
AGAGGCTGGAAGGAATATAAAATGGGTTTTGGAAATCCCTCCGGTGAATATTGGCT
GGGGAATGAGTTTATTTTTGCCATTACCAGTCAGAGGCAGTACATGCTAAGAATTGA
GTTAATGGACTGGGAAGGGAACCGAGCCTATTCACAGTATGACAGATTCCACATAG
GAAATGAAAAGCAAACTATAGGTTGTATTTAAAAGGTCACACTGGGACAGCAGGA
AAACAGAGCAGCCTGATCTTACACGGTGCTGATTTCAGCACTAAAGATGCTGATAAT
GACAACTGTATGTGCAAATGTGCCCTCATGTTAACAGGAGGATGGTGGTTTGATGCT
TGTGGCCCTCCAATCTAAATGGAATGTTCTATACTGCGGGACAAAACCATGGAAA
ACTGAATGGGATAAAGTGGCCTACTTCAAAGGGCCCAGTTACTCCTTACGTTCCAC
AACTATGATGATTGACCTTTAGATTTTTAG

FIG. 10B**Angpt1 – Human protein sequence (498 a.a., ~57.5 kDa):**

MTVFLSFAFLAAILTHIGCSNQRRSPENSGRRYNRIQHGCAYTFILPEHDGNCRESTTD
QYNTNALQRDAPHVEPDFSSQKLQHLEHVMENYTQWLQKLENYIVENMKSEMAQIQQ
NAVQNHTATMLEIGTSLLSQTAEQTRKLTDTVETQVLNQTSRLEIQLLENSLSTYKLEKQL
LQQTNEILKIHEKNSLLEHKILEMEGKHKEELDTLKEEKENLQGLVTRQTYIIQELEKQL
NRATTNNSVLQKQQLLELMDTVHNLVNLCTKEGVLLKGGKREEEPFRDCADVYQAGF
NKSGIYTIYINNMPKPKVFCNMDVNGGGWTVIQHREDGSLDFQRGWKEYKMGFGNPS
GEYWLGNFIFAITSQRQYMLRIELMDWEGNRAYSQYDRFHIGNEKQNYRLYLKGHTG
TAGKQSSLILHGADFSTKDADNDNCMCKCALMLTGGWWFDACGPSNLNGMFYTAGQ
NHGKLNGIKWHYFKGPSYSLRSTTMMIRPLDF

FIG. 10C