

Supplementary Table 1 List of primers used in this study.MRE-1270 mapping assay^a

- For construction of pEF-*Luc*-IFN- α 1-SL2/ Δ BSL
 Δ BSL-invF1, 5'-agtTCATCTGCTGCTGGGATGAG-3' (human chromosomal *IFNA1* coding segment nt 353-373)
 Δ BSL-invR1, 5'-agtTGGATCAGCTCATGagctttag-3' (human chromosomal *IFNA1* coding segment nt 321-308)
- For construction of pEF-*Luc*-IFN- α 1-AS/ exon0.1
0.1F, 5'-gctctagaCACTTGTGGCATTCTGATCTTT-3' (human chromosome 9 nt 21444417-21444395)
0.1R, 5'-gctctagaGCACATCTCTCTCTGGCTTTA-3' (human chromosome 9 nt 221444300-21444322)
- For construction of pEF-*Luc*-IFN- α 1-3' UTRR-DSR
3' UTR-F: 5'-cccaagcttCATCTGGTCCAA CATGAAAACAATTC-3' (human chromosomal *IFNA1* coding segment nt 638-663)
DS-R: 5'-gctctagaGCAAGAGAGTAGGAAAGTAG ATTTATTGTAT-3' (nt 188-159 from the polyadenylation site of *IFNA1*)
- For construction of pEF-*Luc*-IFN- α 1-(SL2-stop codon)R
SL2-stop F: 5'-gctctagaTGATGCAGGAGGAGAGGGT-3' (human chromosomal *IFNA1* coding segment nt 435-453)
SL2-stop R: 5'-gctctagaTTATTCCTTCCTTAATCTTTCTT-3' (human chromosomal *IFNA1* coding segment nt 637-612)
- For construction of pEF-*Luc*-IFN- α 1-(ATG-SL1)R
ATG-SL1 F: 5'-gctctagaATGGCCTCGCCCTTTGCTTAC-3' (human chromosomal *IFNA1* coding segment nt 68-89)
ATG-SL1 R: 5'-gctctagaGAGGACAGAGATGGCTGGAGCC-3' (human chromosomal *IFNA1* coding segment nt 307-286)
- For construction of pEF-*Luc*-CAPRIN1 3'-UTR
CAPRIN1 F: 5'-gctctagaTGGTGTCAACAGCTAGCAG-3' (Homo sapiens *CAPRIN1*, transcript variant 1, mRNA nt: 3474-3493)
CAPRIN1 R: 5'-gctctagaAAATGCCTCAGGAGAAACG-3' (Homo sapiens *CAPRIN1*, transcript variant 1, mRNA nt: 3632-3613)

IFN- α superfamily cross reactivity assay^b

- For construction of phulFN- α 7 expression vector^a
 α 7F, 5'-cccaagcttTACCCACCTCAGGTAGC-3' (*IFNA7* nt 1-17)
 α 7R, 5'-tgctctagaGAAAACATTTGAAAATTTGATCAACTTG-3' (*IFNA7* nt 737-708)
- For construction of phulFN- α 8 expression vector
 α 8F, 5'-cccaagcttACCAGCTCAGCAGCATCCA-3' (*IFNA8* nt 1-19)
 α 8R, 5'-cccaagcttCCATCCATTCTTTAATCAGTTTGA-3' (*IFNA8* nt 1039-1014)
- For construction of phulFN- α 10 expression vector
 α 10flankF, 5'-AGAAAACCTAGAGCCGAAGTTCAAGGT-3' (nt -22-6 from the transcription initiation site of *IFNA10*)
 α 10F, 5'-cccaagcttCAAGTTTACCATCTCAAGTA-3' (*IFNA10* nt 1-21)
 α 10R, 5'-gctctagaGTATAGTAAAAATTTAATGAAAAGGAAATTA-3' (*IFNA10* nt 963-932)
- For construction of phulFN- α 14 expression vector
 α 14F, 5'-cccaagcttGTACCCTCATCAACCAGCC-3' (*IFNA14* nt 1-21)
 α 14R, 5'-tgctctagaTGCACAGGTATACATGATGCTTCTTACAC-3' (*IFNA14* nt 778-749)

Strand-specific RT-PCR

- For detection of IFN- α 2 mRNA/AS RNA
RT primer: R2, 5'-GATCTCATGATTCTGCTCTGAC-3' (*IFNA2* nt 586-564) and F1, 5'-TGGTGTCTCAGCTGCAAGTCAAGC-3' (*IFNA2* nt 103-125), respectively.
PCR primer pair: F1B, 5'-GTGGGCTGTGATCTGCCTCAAAC-3' (*IFNA2* nt 132-154)/R1, 5'-AGGGATGTTTCAGCCTTTTG-3' (*IFNA2* nt 299-279)
- For detection of IFN- α 4 mRNA/AS RNA
RT primer: R2, 5'-GATCTCATGATTCTGCTCTGAC-3' (*IFNA4* nt 589-567) and F1B, 5'-ACATGATTCCGGATCCCCGAGGAGGAG-3' (*IFNA4* nt 236-263), respectively.
PCR primer pair: *IFNA4* F1B as above /R1, 5'-TTTTCTAGGAGGCTCTGTTCCCAAGCAGC-3' (*IFNA4* nt 389-360)
- For detection of IFN- α 5 mRNA/AS RNA
RT primer: R2, 5'-GATCTCATGATTCTGCTCTGAC-3' (*IFNA5* nt 578-556) and F1, 5'-TGGTGTGCTCAACTGCAAGTCAAT-3' (*IFNA5* nt 89-113), respectively.
PCR primer pair: F1B, 5'-CAGACCCACAGCCTGAGTAAC-3' (*IFNA5* nt 139-159) /R1, 5'-GAATTTGTCTAGAAGTGTCTCATCCCAAGT-3' (*IFNA5* nt 381-352)
- For detection of IFN- α 6 mRNA/AS RNA
RT primer: R2, 5'-GATCTCATGATTCTGCTCTGAC-3' (*IFNA6* nt 521-499) and F1, 5'-TGGTGTCTCAGCTGCAAGTCAAGC-3' (*IFNA6* nt 35-57), respectively.
PCR primer pair: F1B, 5'-CTGGGTCACAGGAGGACCATGAT-3' (*IFNA6* nt 94-116) /R1, 5'-CTGAATCACCTCATGGAGGACAGAG-3' (*IFNA6* nt 255-231)
- For detection of IFN- α 7 mRNA/AS RNA
RT primer: R2, 5'-GATCTCATGATTCTGCTCTGAC-3' (*IFNA7* nt 561-539) and F1, 5'-TACCCACCTCAGGTAGCTAGTGAT-3' (*IFNA7* nt 1-25), respectively.
PCR primer pair: F2, 5'-GTACTCAGCTACAAATCCATCTGCTCTC-3' (*IFNA7* nt 77-104) /R1, 5'-CCTCTGGGAATCTGAATTCATGCTGTCC-3' (*IFNA7* nt 230-202)
- For detection of IFN- α 8 mRNA/AS RNA
RT primer: R2, 5'-ACCATCCATTCTTTAATCAGTTTG-3' (*IFNA8* nt 1039-1016) and commonF, 5'-CTCTGGGCTGTGATCTGCCTCAGAC-3' (*IFNA8* nt 92-116), respectively.
PCR primer pair: F1B, 5'-CTATCTATAGGGCTAAATAGTTTGTTC-3' (*IFNA8* nt 841-870) /R1, 5'-CATTCTTAATCAGTTTGCAACATC-3' (*IFNA8* nt 1033-1009)
- For detection of IFN- α 10 mRNA/AS RNA
RT primer: commonR, 5'-GTATAGTAAAAATTTAATGAAA-3' (*IFNA10* nt 963-941) and commonF, 5'-CTCTGGGCTGTGATCTGCCTCAGAC-3' (*IFNA10* nt 108-132)
PCR primer pair: F1B, 5'-TCACTTCTATAACCACGACGC-3' (*IFNA10* nt 696-716) /R1, 5'-CGACTCATGATATTACATAAATTTAAA-3' (*IFNA10* nt 877-850)
- For detection of IFN- α 14 mRNA/AS RNA
RT primer: R2, 5'-GATCTCATGATTCTGCTCTGAC-3' (*IFNA14* nt 565-543) and F1, 5'-TGGTGTCTCAGCTGCAAGTCAAGC-3' (*IFNA14* nt 79-101), respectively.
PCR primer pair: F1B, 5'-CTGGGCTGTAATCTGTCTCAA-3' (*IFNA14* nt 108-128) /R1, 5'-AGAGATGGCTTGAGCTTTCTG-3' (*IFNA14* nt 278-258)
- For detection of IFN- α 16 mRNA/AS RNA
RT primer: commonR, 5'-GTATAGTAAAAATTTAATGAAA-3' (*IFNA16* nt 939-917) and commonF, 5'-CTCTGGGCTGTGATCTGCCTCAGAC-3' (*IFNA16* nt 68-92), respectively.
PCR primer pair: F1B, 5'-TTTTTCAGGAGTGAAGAAGCA-3' (*IFNA16* nt 699-720) /R1, 5'-CATAAAACATGATTAAACCTTAAAAATAG-3' (*IFNA16* nt 839-810)
- For detection of IFN- α 17 mRNA/AS RNA
RT primer: R2, 5'-GATCTCATGATTCTGCTCTGAC-3' (*IFNA17* nt 560-548) and F1B, 5'-CTAGGCTGTGATCTGCCTCAGAC-3' (*IFNA17* nt 113-135), respectively.
PCR primer pair: F1B as above (*IFNA17* nt 113-135) /R1, 5'-CCATCAAACCTCCTCTGGGGAAG-3' (*IFNA17* nt 252-230)

For detection of IFN- α 21 mRNA/AS RNA
 RT primer: R1, 5'-TAAAGAATAACAATAATAAGAAGTTT-3' (*IFNA21* nt 1005-976) /commonF, 5'-CTCTGGGCTGTGATCTGCCTCAGAC-3' (*IFNA21* nt 110-134), respectively.
 PCR primer pair: F1B, 5'-TTTGTCCATGTAATATATGTGT-3' (*IFNA21* nt871-894) /R1, as above (*IFNA21* nt 1005-976)

For detection of CAPRIN1 mRNA
 RT primer: R1, 5'-ATAGCTGAGCACCTACTGGAAG-3' (*CAPRIN1* nt 3928-3907)
 PCR primer pair: F1, 5'-TGGTGTTC AACAGCTAGCAG-3' (*CAPRIN1* nt: 3474-3493) /R2, 5'-AAATGCCTCCAGGAGAAACG-3' (*CAPRIN1* nt: 3632-3613)

For detection of CTSE mRNA
 RT primer: R1, 5'-AGAGAGGCACCAGCATTATCTG-3' (*CTSE* nt: 2153-2132)
 PCR primer pair: F1, 5'-TTATCTACACTGCTGCCACTC-3' (*CTSE* nt: 1707-1728) /R2, 5'-TGGGACAATGGGAGATGCTTG-3' (*CTSE* nt: 1858-1838)

For detection of GLI2 mRNA
 RT primer: R1, 5'-AAGGGGGAAGCAGATAGACAAG-3' (*GLI2* nt: 6642-6621)
 PCR primer pair: F1, 5'-TGAAAGCCAGGGAACATTGC-3' (*GLI2* nt: 6357-6376) /R2, 5'-AATTTGGCTGGACGACTCAC-3' (*GLI2* nt: 6508-6489)

For detection of KRT40 mRNA
 RT primer: R1, 5'-CCACGCTAAAGGAATAAACACG-3' (*KRT40* nt: 1707-1685)
 PCR primer pair: F1, 5'-AGCAGGTAGAGGAATCAAAGCC-3' (*KRT40* nt: 1469-1490) /R2, 5'-AGAATGCTTTATGGGCTCCAG-3' (*KRT40* nt: 1665-1644)

For detection of LYZ mRNA
 RT primer: R1, 5'-GAGATGACTGAACAGATGAAGGC-3' (*LYZ* nt: 1231-1209)
 PCR primer pair: F1, 5'-GAAGCAGGAGCAAATATGGC-3' (*LYZ* nt: 616-636) /R2, 5'-AAAAAGAACGGAATGTACTGGAG-3' (*LYZ* nt: 785-763)

For detection of MARCH5 mRNA
 RT primer: R1, 5'-GCAAAGTTAGCAAGGCAGTG-3' (*MARCH5* nt: 3840-3821)
 PCR primer pair: F1, 5'-GGGGACAAATGAAAGAGATGATG-3' (*MARCH5* nt: 3562-3584) /R2, 5'-TTTTAGCCACTTTGGAGATAAG-3' (*MARCH5* nt: 3749-3727)

For detection of OTUD3 mRNA
 RT primer: R1, 5'-AACTAACAGCACCTGCATCC-3' (*OTUD3* nt: 1968-1949)
 PCR primer pair: F1, 5'-ATCAGACTTCAGTGACCCTAGG-3' (*OTUD3* nt: 1628-1649) /R2, 5'-AGCATATTCCTGAGTTGGAGATC-3' (*OTUD3* nt: 1809-1787)

For detection of RASAL2 mRNA
 RT primer: R1, 5'-GGCCAGAGTGGGGTTTTAAAC-3' (*RASAL2* nt: 5117-5096)
 PCR primer pair: F1, 5'-ACCCACCAAGCTTTCCATC-3' (*RASAL2* nt: 4552-4571) /R2, 5'-ACCACATCGCCATTGTGAAG-3' (*RASAL2* nt: 4722-4703)

For detection of TC2N mRNA
 RT primer: R1, 5'-AGATGGCACCTAGGGAAAAGAG-3' (*TC2N* nt: 3183-3162)
 PCR primer pair: F1, 5'-GGAGAAAGTTTGTGCCCTGTG-3' (*TC2N* nt: 2392-2412) /R2, 5'-TTGAGGGAAGAAAACAGCAAAG-3' (*TC2N* nt: 2585-2564)

AntimiR oligonucleotides^c

antimiR-1270: 5'-T(L)^aA(L)^aT(L)^a5(L)^aT(L)^a5(L)^a5(L)^aA(L)-3'

LNA mismatch: 5'-T(L)^aG(L)^aG(L)^aA(L)^aG(L)^aA(L)^aT(L)^aA(L)-3'

^aThe flanking restriction sites are in lower case type

^bThe flanking restriction sites are in lower case type

^c(L) and (5) indicate LNA nucleotides and LNA methylcytosine, respectively. ^ shows a phosphorothioate bond.