ISG20 siRNA – Interferon-Stimulated Gene 20 Kda Protein Isoform a (Human)

PRODUCT OVERVIEW

Product Name	ISG20, siRNA
Full Product Name	ISG20 siRNA (Human)
Product Gene Name	ISG20 sirna
Product Synonym Names	HEM45; Interferon-stimulated gene 20 kDa protein; Estrogen-regulated transcript 45 protein; Promyelocytic leukemia nuclear body-associated protein ISG20
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	ISG20 siRNA (Human) is a target-specific 19-23 nt siRNA oligo duplexes designed to knock down gene expression.
Preparation and Storage	Shipped at 4 degree C. Store at -20 degree C for one year.
Molecular Weight	9,199 Da
OMIM	604533
3D Structure	ModBase 3D Structure for Q96AZ6
Negative Control	siRNA Negative Control (Catalog# MBS8241404) is a non-targeting 21 nt siRNA recommended as a negative control for experiments using targeted siRNA transfection.
Quality Control	Oligonucleotide synthesis is monitored base by base through trityl analysis to ensure appropriate coupling efficiency. The oligo is subsequently purified by affinity-solid phase extraction. The annealed RNA duplex is further analyzed by mass spectrometry to verify the exact composition of the duplex. Each lot is compared to the previous lot by mass spectrometry to ensure maximum lot-to-lot consistency.
Directions for Use	We recommends transfection with 100 nM siRNA 48 to 72 hours prior to cell lysis. Before resuspending, briefly centrifuge the tube to ensure the lyophilized siRNA is at the bottom of the tube. Resuspend the siRNA oligos to an appropriate concentration with DEPC water. For each vial, suitable for 250 transfections in 24 well plate (20 pmol for each well).
Components	We offer pre-designed sets of 3 different target-specific siRNA oligo duplexes of human ISG20 gene. Each vial contains 5 nmol of lyophilized siRNA. The duplexes can be transfected individually or pooled together to achieve knockdown of the target gene, which is most commonly assessed by qPCR or western blot. Our siRNA oligos are also chemically modified (2'-OMe) at no extra charge for increased stability and enhanced knockdown in vitro and in vivo.
Applications Tested/Suitable for ISG20 sirna	RNA Interference (RNAi)
Related Product Information for ISG20 sirna	MBS8234070 is an siRNA targeting ISG20. Also known as ISG20 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit ISG20 expression using RNA interference
Other Notes	Small volumes of ISG20 sirna vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ISG20. It may not necessarily be applicable to this product.

NCBI GI #	735367255
NCBI GeneID	3669
NCBI Accession #	NP_001290162.1
UniProt Primary Accession #	Q96AZ6
UniProt Secondary Accession #	O00441; O00586
UniProt Related Accession #	Q96AZ6
GenBank Nucleotide #	NM_001303233.1
NCBI Official Full Name	interferon-stimulated gene 20 kDa protein isoform a
NCBI Official Synonym Full Names	interferon stimulated exonuclease gene 20kDa
NCBI Official Symbol	ISG20
NCBI Official Synonym Symbols	CD25; HEM45
UniProt Protein Name	Interferon-stimulated gene 20 kDa protein
UniProt Synonym Protein Names	Estrogen-regulated transcript 45 protein; Promyelocytic leukemia nuclear body-associated protein ISG20
Protein Family	Interferon-stimulated gene 20 kDa protein
UniProt Gene Name	ISG20
UniProt Synonym Gene Names	HEM45
UniProt Entry Name	ISG20_HUMAN
NCBI Protein Information	interferon-stimulated gene 20 kDa protein
UniProt Comments for ISG20	ISG20: Exonuclease with specificity for single-stranded RNA and, to a lesser extent for DNA. Degrades RNA at a rate that is approximately 35-fold higher than its rate for single-stranded DNA. Involved in the antiviral function of IFN against RNA viruses. Belongs to the exonuclease superfamily. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Nucleolus; Deoxyribonuclease; EC 3.1.13.1; Ribonuclease Chromosomal Location of Human Ortholog: 15q26 Cellular Component: nucleoplasm; Cajal body; PML body; cytoplasm; nucleolus; nucleus Molecular Function: exoribonuclease II activity; 3'-5'-exoribonuclease activity; U1 snRNA binding; metal ion binding; exonuclease activity; single-stranded DNA specific 3'-5' exodeoxyribonuclease activity; U2 snRNA binding Biological Process: cell proliferation; negative regulation of viral genome replication; cytokine and chemokine mediated signaling pathway; response to virus; RNA catabolic process; DNA catabolic process, exonucleolytic; defense response to virus; rRNA processing
Research Articles on ISG20	**1.** The results suggest that hantavirus infection interferes with DAXX-mediated apoptosis, and expression of interferon-activated Sp100 and ISG-20 proteins may indicate intracellular intrinsic antiviral attempts.
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