RNF7 siRNA – RING-Box Protein 2 Isoform 4 (Human)

PRODUCT OVERVIEW

Product Name	RNF7, siRNA
Full Product Name	RNF7 siRNA (Human)
Product Gene Name	RNF7 sirna
Product Synonym Names	RBX2; ROC2; SAG; RING-box protein 2; Rbx2; CKII beta-binding protein 1; CKBBP1; RING finger protein 7; Regulator of cullins 2; Sensitive to apoptosis gene protein
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	RNF7 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	10,876 Da
OMIM	603863
3D Structure	ModBase 3D Structure for Q9UBF6
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 RNF7 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 RNF7 sirna	RNA Interference (RNAi)
Related Product Information for RNF7 sirna	MBS8237098 is an siRNA targeting RNF7. Also known as RNF7 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit RNF7 expression using RNA interference
Other Notes	Small volumes of RNF7 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 RNF7. It may not necessarily be applicable to this product.

NCBI GI #	319004144
NCBI GeneID	9616
NCBI Accession #	NP_001188299.1
UniProt Primary Accession #	Q9UBF6
UniProt Secondary Accession #	Q9BXN8; Q9Y5M7; A8K1H9; A8MTB5; C9JYL3; D3DNF7; D3DNF8
UniProt Related Accession #	Q9UBF6
GenBank Nucleotide #	NM_001201370.1
NCBI Official Full Name	RING-box protein 2 isoform 4
NCBI Official Synonym Full Names	ring finger protein 7
NCBI Official Symbol	RNF7
NCBI Official Synonym Symbols	SAG; ROC2; CKBBP1
UniProt Protein Name	RING-box protein 2
UniProt Synonym Protein Names	CKII beta-binding protein 1; CKBBP1; RING finger protein 7; Regulator of cullins 2; Sensitive to apoptosis gene protein
Protein Family	RING-box protein
UniProt Gene Name	RNF7
UniProt Synonym Gene Names	RBX2; ROC2; SAG; Rbx2; CKBBP1
UniProt Entry Name	RBX2_HUMAN
NCBI Protein Information	RING-box protein 2
NCBI Summary for RNF7	The protein encoded by this gene is a highly conserved ring finger protein. It is an essential subunit of SKP1-cullin/CDC53-F box protein ubiquitin ligases, which are a part of the protein degradation machinery important for cell cycle progression and signal transduction. This protein interacts with, and is a substrate of, casein kinase II (CSNK2A1/CKII). The phosphorylation of this protein by CSNK2A1 has been shown to promote the degradation of IkappaBalpha (CHUK/IKK-alpha/IKBKA) and p27Kip1(CDKN1B). Alternatively spliced transcript variants encoding distinct isoforms have been reported. [provided by RefSeq, Jul 2008]
UniProt Comments for RNF7	RNF7: a highly conserved ring finger protein. An essential subunit of SKP1-cullin/CDC53-F box protein ubiquitin ligases, which are a part of the protein degradation machinery important for cell cycle progression and signal transduction. The RING-type zinc finger recruits the E2 ubiquitination enzyme to the complex and brings it into close proximity to the substrate. This protein interacts with, and is a substrate of, casein kinase II (CKII). The phosphorylation of this protein by CKII has been shown to promote the degradation of IkappaB-alpha (CHUK/IKK-alpha/IKBKA) and p27Kip1(CDKN1B). Two alternatively spliced isoforms have been reported. Protein type: Ubiquitin ligase; Ligase; Motility/polarity/chemotaxis; Ubiquitin conjugating system; EC 6.3.2.- Chromosomal Location of Human Ortholog: 3q22-q24 Cellular Component: nucleoplasm; Cul5-RING ubiquitin ligase complex; cytoplasm; nucleus Molecular Function: protein binding; copper ion binding; zinc ion binding; NEDD8 ligase activity Biological Process: protein neddylation; protein ubiquitination; response to redox state; induction of apoptosis by oxidative stress; negative regulation of apoptosis
Research Articles on RNF7	**1.** These findings indicate that Rbx1 and Rbx2 can both activate Cul5-Vif E3 ligase in vitro, but they may undergo a more delicate selection mechanism in vivo.

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