BST2 siRNA – Bone Marrow Stromal Antigen 2 (Rat)

PRODUCT OVERVIEW

Product Name	BST2, siRNA
Full Product Name	BST2 siRNA (Rat)
Product Gene Name	BST2 sirna
Product Synonym Names	DAMP1; Bone marrow stromal antigen 2; BST-2; Protein DAMP-1; CD antigen CD317
Host	Synthetic
Species Reactivity	Rat
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	BST2 siRNA (Rat) 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	19,674 Da
3D Structure	ModBase 3D Structure for Q811A2
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 rat BST2 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 BST2 sirna	RNA Interference (RNAi)
Related Product Information for BST2 sirna	MBS8214982 is an siRNA targeting BST2. Also known as BST2 siRNA (Rat). Reactive in Rat. Host: Synthetic. siRNA to inhibit BST2 expression using RNA interference
Other Notes	Small volumes of BST2 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 BST2. It may not necessarily be applicable to this product.

NCBI GI #	37693510
NCBI GeneID	378947

NCBI Accession #	NP_937767.1
UniProt Primary Accession #	Q811A2
UniProt Related Accession #	Q811A2
GenBank Nucleotide #	NM_198134.2
NCBI Official Full Name	bone marrow stromal antigen 2
NCBI Official Synonym Full Names	bone marrow stromal cell antigen 2
NCBI Official Symbol	Bst2
NCBI Official Synonym Symbols	Damp1; DAMP-1
UniProt Protein Name	Bone marrow stromal antigen 2
UniProt Synonym Protein Names	Protein DAMP-1; CD_antigen: CD317
Protein Family	Bone marrow stromal antigen
UniProt Gene Name	Bst2
UniProt Synonym Gene Names	Damp1; BST-2
UniProt Entry Name	BST2_RAT
NCBI Protein Information	bone marrow stromal antigen 2
NCBI Summary for BST2	putative secretory protein [RGD, Feb 2006]
UniProt Comments for BST2	BST2: IFN-induced antiviral host restriction factor which efficiently blocks the release of diverse mammalian enveloped viruses by directly tethering nascent virions to the membranes of infected cells. Acts as a direct physical tether, holding virions to the cell membrane and linking virions to each other. The tethered virions can be internalized by endocytosis and subsequently degraded or they can remain on the cell surface. In either case, their spread as cell-free virions is restricted. Its target viruses belong to diverse families, including retroviridae: human immunodeficiency virus type 1 (HIV-1), human immunodeficiency virus type 2 (HIV-2), simian immunodeficiency viruses (SIVs), equine infectious anemia virus (EIAV), feline immunodeficiency virus (FIV), prototype foamy virus (PFV), Mason- Pfizer monkey virus (MPMV), human T-cell leukemia virus type 1 (HTLV-1), Rous sarcoma virus (RSV) and murine leukemia virus (MLV), flaviviridae: hepatitis C virus (HCV), filoviridae: ebola virus (EBOV) and marburg virus (MARV), arenaviridae: lassa virus (LASV) and machupo virus (MACV), herpesviridae: kaposis sarcoma- associated herpesvirus (KSHV), rhabdoviridae: vesicular stomatitis virus (VSV), orthomyxoviridae: influenza A virus, and paramyxoviridae: nipah virus. Can inhibit cell surface proteolytic activity of MMP14 causing decreased activation of MMP15 which results in inhibition of cell growth and migration. Can stimulate signaling by LILRA4/ILT7 and consequently provide negative feedback to the production of IFN by plasmacytoid dendritic cells in response to viral infection. Plays a role in the organization of the subapical actin cytoskeleton in polarized epithelial cells. Belongs to the tetherin family. Protein type: Cell development/differentiation; Membrane protein, integral; Membrane protein, GPI anchor Cellular Component: Golgi apparatus; cell surface; membrane; cytoplasm; apical plasma membrane; late endosome; integral to membrane; plasma membrane; intracellular; lipid raft Molecular Function: metalloendopeptidase inhibitor activity; protein binding; signal transducer activity; protein homodimerization activity Biological Process: negative regulation of plasmacytoid dendritic cell cytokine production; positive regulation of I-kappaB kinase/NF-kappaB cascade; negative regulation of viral genome replication; response to virus; regulation of actin cytoskeleton organization and biogenesis; innate immune response; negative regulation of cell growth; signal transduction; defense response to virus; negative regulation of cell migration
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