

Recombinant Rat BST2 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52545

Size: 10ug, 100ug

Protein Name: Bone marrow stromal antigen 2 (BST-2) (Protein DAMP-1) (CD antigen CD317)

Synonym: Bst2, Damp1

UniProt ID: Q811A2

UniProt Link: www.uniprot.org/uniprotkb/Q811A2/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 172 AA

Molecular Weight: 20 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MAPSFYHYLPVAMDERWEPKGWSIRRWLVAAILVVLIGVVLVCLIVYFANAHHSEACKNGLRLQDE
CRNTTHLLKHQLTRAQDSLLQTEMQANSCNQTVMDLRDSLKKKVSQTQEQQARIKELENKIERLNQ
ELENLRTQKEISTTVQVNSGGSVVSSLLVLVAVLFLHF

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Bone marrow stromal antigen 2 (BST-2) (Protein DAMP-1) (CD antigen CD317) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: 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), mouse mammary tumor virus (MMTV) and murine leukemia virus (MLV), filoviridae: ebola virus (EBOV), arenaviridae: lassa virus (LASV), and rhabdoviridae: vesicular stomatitis virus (VSV). 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 (By similarity). Plays a role in the organization of the subapical actin cytoskeleton in polarized epithelial cells.

Subcellular Localization: Golgi apparatus, trans-Golgi network. Cell membrane; Single-pass type II membrane protein. Cell membrane; Lipid-anchor, GPI-anchor. Late endosome . Membrane raft. Cytoplasm . Apical cell membrane. Note=Shuttles between the cell membrane, where it is present predominantly in membrane/lipid rafts, and the trans-Golgi network. Forms a complex with MMP14 and localizes to the cytoplasm (By similarity).

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.