Recombinant BST2 protein (His tag)

Catalog Number	544877
Synonyms	BST-2; HM1.24 antigen; Tetherin; CD antigen CD317
Species	Human
Expression System	E. coli
Accession	Q10589
Molecular Weight	Predictes a molecular mass of 14.29 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 16 kDa band.

Product Information

Sequence Region	49-161
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 49-161 aa (Q10589) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Introducing the recombinant Bone marrow stromal antigen 2 (BST-2) fragment (amino acids 49-161), a stable and soluble protein unit derived from the human antiviral restriction factor Tetherin. This fragment is expertly designed for structural and biochemical studies, enabling researchers to investigate the mechanisms of viral tethering and host defense without the complexities of the full-length membrane protein. Bone marrow stromal antigen 2 (BST-2), also known as Tetherin or CD317, is an interferon-induced antiviral host restriction factor that plays a critical role in innate immunity by blocking the release of diverse enveloped viruses. It functions by directly tethering nascent virions to the membranes of infected cells, preventing their spread and facilitating degradation. BST-2 targets a wide range of viruses, including HIV-1, Ebola virus, influenza A, and SARS-CoV, and also modulates cell signaling and cytoskeletal organization. The protein localizes to the cell membrane, particularly in lipid rafts, and shuttles to the trans-Golgi network, with its activity regulated by viral antagonists and isoform-specific functions. The provided fragment (49-161) represents a computationally selected stable region ideal for elucidating BST-2's structural properties and interactions.