Data Sheet (Cat.No.TMPY-03193)

TargetMol

BST2 Protein, Human, Recombinant (hFc)

General Information

Synonyms:	CD317;TETHERIN;bone marrow stromal cell antigen 2
Protein Construction:	Asn49-Ser161
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q10589-1
Molecular Weight:	40 kDa (Predicted); 50-60 kDa (Reducing conditions due to glycosylation)

QC Testing

Biological Activity:	Immobilized Human BST2, hFc Tag at 0.5μg/ml (100μl/well) on the plate. Dose response curve for Biotinylated Anti-BST2 Antibody, hFc Tag with the EC50 of 0.12μg/ml determined by ELISA. determined by ELISA.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from 0.22μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Shipping:

In general, Lyophilized powders are shipping with blue ice.

Protein Background

Interferon-induced BST2 (bone marrow stromal cell antigen 2) inhibits viral replication by tethering enveloped virions to the cell surface to restrict viral release and by inducing the NFKB-dependent antiviral immune response. BST2 expression was significantly increased during porcine epidemic diarrhea virus (PEDV) infection of Vero cells by IRF1 targeting its promoter. Both the BST2 and N protein interacted with the E3 ubiquitin ligase MARCHF8/MARCH8 and the cargo receptor.

Reference

Ishikawa J, et al. (1995) Molecular cloning and chromosomal mapping of a bone marrow stromal cell surface gene, BST2, that may be involved in pre-B-cell growth. Genomics. 26 (3): 527-34.
Viswanathan K, et al. (2011) BST2/Tetherin enhances entry of human cytomegalovirus. PLoS Pathog. 7(11): e1002332.
Gifford RJ. (2011) No trespassing: ancient BST2 deletion confers protection against simian immunodeficiency virus infection of humans. Hum Mutat. 32(11).

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