

## BST2 Protein, Mouse, Recombinant (His)

### General Information

Synonyms:	Bst-2;GREG;bone marrow stromal cell antigen 2;C87040;CD317;2310015I10Rik;DAMP-1
Protein Construction:	Thr52-Ser152
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q8R2Q8
Molecular Weight:	13.2 kDa (Predicted); 17-30 kDa (Due to glycosylation)

### QC Testing

Biological Activity:	Activity testing is not tested. It is theoretically active, but we cannot guarantee it.
Purity:	> 95% as determined by Tris-Bis PAGE
Endotoxin:	< 1.0 EU/ $\mu$ g of the protein as determined by the LAL method.
Formulation:	Lyophilized from 0.22 $\mu$ m 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  $\mu$ g/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.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry 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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