Data Sheet (Cat.No.TMPK-00584)

TargetMol

BTN2A2 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	BTN2.2;BTF2;BT2.2;BTN2A2
Protein Construction:	Gln30-Ser244
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	A4QPC6-1
Molecular Weight:	25.78 kDa (predicted). Due to glycosylation, the protein migrates to 40-50 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
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 a solution filtered through a 0.22 μm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent 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.

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

Butyrophilin (BTN) genes encode a set of related proteins. Cell surface BTN2A2 protein, such as the B7 family molecule programmed death ligand 1, was upregulated upon activation of T cells.BTN2A2 is a co-inhibitory molecule that modulates T cell-mediated immunity.

Reference

Smith IA, et al. BTN1A1, the mammary gland butyrophilin, and BTN2A2 are both inhibitors of T cell activation. J Immunol. 2010 Apr 1;184(7):3514-25. doi: 10.4049/jimmunol.0900416. Epub 2010 Mar 5. PMID: 20208008.
Sarter K, et al. Btn2a2, a T cell immunomodulatory molecule coregulated with MHC class II genes. J Exp Med. 2016 Feb 8;213(2):177-87. doi: 10.1084/jem.20150435. Epub 2016 Jan 25. PMID: 26809444; PMCID: PMC4749920.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481