Human BTN1A1 / Butyrophilin Protein, Fc Tag

Catalog # BT1-H5253

Synonym

BTN1A1,Butyrophilin,BTN

Source

Human BTN1A1, Fc Tag(BT1-H5253) is expressed from human 293 cells (HEK293). It contains AA Ala 27 - Arg 242 (Accession # AAH96312).
Predicted N-terminus: Ala 27

Molecular Characterization

BTN1A1(Ala 27 - Arg 242) AAH96312	Fc(Pro 100 - Lys 330) P01857

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 50.6 kDa. The protein migrates as 55-66 kDa under reducing (R) condition, and 116-130 kDa under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in
Tris with Glycine, Arginine and NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

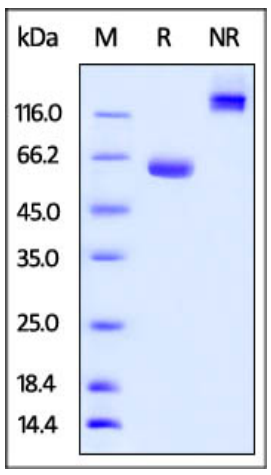
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human BTN1A1, Fc Tag on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

Background

Butyrophilin subfamily 1 member A1 (BTN1A1) is also known as BTN, which is a member of the immunoglobulin superfamily and the major protein associated with fat droplets in the milk. BTN1A1 may have a cell surface receptor function. The human butyrophilin gene is localized in the major histocompatibility complex (MHC) class I region of 6p and may have arisen relatively recently in evolution by the shuffling of exons between 2 ancestral gene families. Furthermore, BTN1A1

regulates the amount of lipids and size of droplets expressed in milk and inhibits the proliferation of CD4 and CD8 T-cells activated by anti-CD3 antibodies, T-cell metabolism and IL2 and IFNG secretion.