

**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
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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.

**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.*

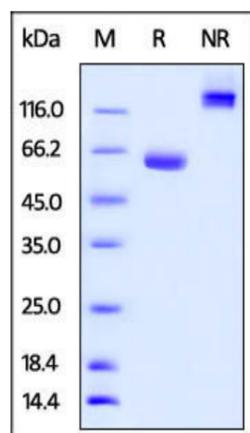
**Storage**

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 overnight 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.

### Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.