

## Recombinant Human BTN1A1 protein, His-tagged

**Cat. No.** BTN1A1-7782H    **Lot. No.** (See product label)

### SPECIFICATION

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>     | Recombinant Human BTN1A1 (Ala27-Arg242) protein was fused to His-tag at C-terminus and expressed in human 293 cells (HEK293).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Species</b>              | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Source</b>               | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>ProteinLength</b>        | Ala27-Arg242                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Description</b>          | 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. |
| <b>Predicted N Terminal</b> | Ala27                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Form</b>                 | Lyophilized from 0.22 µm filtered solution in PBS, pH7.4, 10% trehalose.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Molecular Mass</b>       | The protein has a calculated MW of 25.8 kDa. The protein migrates as 35-40 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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|                       |                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Endotoxin</b>      | Less than 1.0 EU per µg by the LAL method.                                                                                                                                                                                                                                                                                                                      |
| <b>Purity</b>         | >95% as determined by SDS-PAGE.                                                                                                                                                                                                                                                                                                                                 |
| <b>Storage</b>        | <p>For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower.</p> <p>Please avoid repeated freeze-thaw cycles.</p> <p>This product is stable after storage at:</p> <p>-20 to -70 centigrade for 12 months in lyophilized state;</p> <p>-70 centigrade for 3 months under sterile conditions after reconstitution.</p> |
| <b>Reconstitution</b> | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.                                                                                                                                                                                   |

## GENE INFORMATION

|                        |                                                                                                                                            |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | BTN1A1                                                                                                                                     |
| <b>Official Symbol</b> | BTN1A1                                                                                                                                     |
| <b>Synonyms</b>        | BTN1A1; butyrophilin, subfamily 1, member A1; BTN; butyrophilin subfamily 1 member A1; BT; bK14H9.2 (butyrophilin, subfamily 1, member A1) |
| <b>Gene ID</b>         | 696                                                                                                                                        |
| <b>mRNA Refseq</b>     | NM_001732                                                                                                                                  |
| <b>Protein Refseq</b>  | NP_001723                                                                                                                                  |
| <b>MIM</b>             | 601610                                                                                                                                     |

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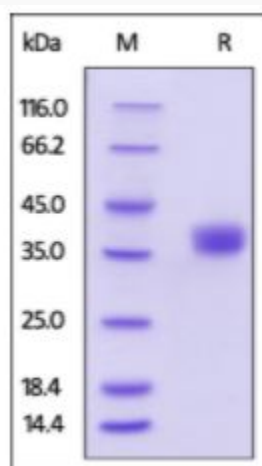
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UniProt ID

Q13410

SDS-PAGE of  
BTN1A1-7782H



Human BTN1A1, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

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