

Active Recombinant Human BTN3A2 protein, His/Avi-tagged, Biotinylated

Cat. No. BTN3A2-051H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Biotinylated Recombinant Human BTN3A2(Gln30-Trp248) protein, fused to His/Avi tag at the C-terminus, was expressed in HEK293 cells .
Species	Human
Source	HEK293
ProteinLength	Gln30-Trp248
Description	BTN3A2 (Butyrophilin subfamily 3 member A2; also BTF3 and BT3.2) is a 36 kDa (predicted) glycoprotein, member of the BTN family, Ig Superfamily of molecules. It is postulated to be expressed on immune-related cells, as it has a structural similarity to MHC and CD80/CD86 molecules. Mature human BTN3A2 is a 305 amino acid (aa) type I transmembrane protein. It contains a 219 aa extracellular region with one V-type Ig-like domain and a 65 aa cytoplasmic tail. The cytoplasmic region undergoes phosphorylation on two serines. There are three potential splice forms. A rodent counterpart to BTN3A2 has not been reported. BTN3A2 mRNA over-expression was associated with a good prognosis in relation to disease-free and overall survival in a cohort of 55 epithelial ovarian cancer (EOC) patients (1). Another study in a larger cohort of 199 high-grade EOC patients further confirmed that the protein expression of BTN3A2 in ovarian cancer tissues is positively correlated with the intraepithelial infiltration of CD4+ and CD8+ T cells (2), suggesting that BTN3A2 was a co-stimulatory molecule to modulate the infiltration of immune cells and

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thus the anti-cancer immunity. In consistent with previous publications, our in-house studies on BTN3A2 showed that BTN3A2 co-stimulated anti-CD3 induced IFN-gamma secretion on CD3+ cells.

Form	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.
Bio-activity	Measured by its binding ability in a functional ELISA. When Sheep Anti-Human BTN3A1/2 Antigen Affinity-purified Polyclonal Antibody is immobilized at 1.0 µg/mL, 100 µL/well, the concentration of Biotinylated Recombinant Human BTN3A2 His-tag Avi-tag that produces 50% of the optimal binding response is approximately 15-75 ng/mL.
Molecular Mass	27-37 kDa, under reducing conditions
Endotoxin	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Applications	Bioactivity
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Reconstitution	Reconstitute at 200 µg/mL in PBS.
Conjugation	Biotin

GENE INFORMATION

Gene Name BTN3A2 butyrophilin, subfamily 3, member A2 [Homo sapiens]

Official Symbol [BTN3A2](#)

Synonyms BTN3A2; butyrophilin, subfamily 3, member A2; butyrophilin subfamily 3 member A2; butyrophilin protein; BTF4; BT3.2; BT3.3; FLJ40011;

Gene ID [11118](#)

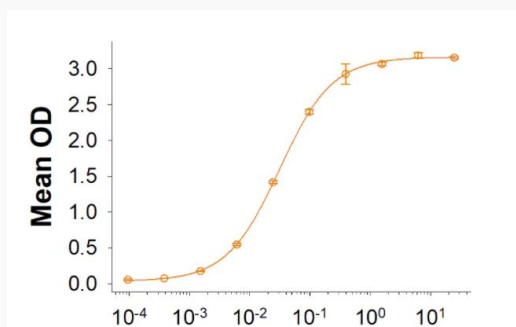
mRNA Refseq [NM_001197246](#)

Protein Refseq [NP_001184175](#)

MIM [613594](#)

UniProt ID [P78410](#)

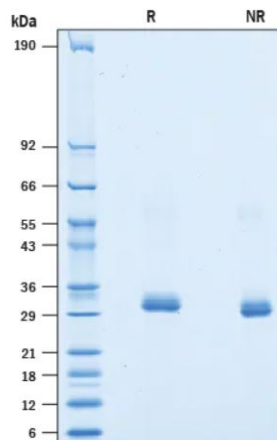
Binding Activity



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SDS-PAGE

2 µg/lane Protein was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining.

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