Recombinant Protein Technical Manual

Recombinant Mouse Butyrophilin 1A1/BTN1A1 Protein (His Tag)

RPES4908

Product Data:

Product SKU: RPES4908

Size: 10µg

Species: Mouse

Expression host: Human Cells

Uniprot: Q62556

Protein Information:

Molecular Mass:	25.4 kDa
AP Molecular Mass:	32-35 kDa
Tag:	C-6His
Bio-activity:	
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU per µg as determined by the LAL method.
Storage:	Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping:	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation:	Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4.
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	
Synonyms:	Butyrophilin subfamily 1 member A1; BTN; BTN1A1;butyrophilin;Btn1a1

Immunogen Information:

Sequence: Ala27-Trp247

Background:

Mouse Butyrophilin subfamily 1 member A1(BTN1A1) is a type I transmembrane glycoprotein which is a member of the Ig superfamily. The BTN1A1 ECD displays two predicted IgV and IgC domains as do B7 and Skint proteins which interact with other Ig superfamily members. BTN1A1 binds to xanthine oxidoreductase (XOR). This interaction stabilizes the association of XOR with the milk fat globule membrane and appears to be essential in the control of milk fat globule secretion. In vitro, BTN1A1 inhibits the proliferation of CD4 and CD8 T-cells activated by anti-CD3 antibodies, T-cell metabolism and IL-2 and IFN-γ secretion. Furthermore, in vivo, BTN1A1 has a protective effect against the development of experimental autoimmune encephalomyelitis (EAE). Because butyrophilins are structurally related to B7 proteins and are functionally implicated in immune regulation, they may represent an emerging family of costimulatory/inhibitory molecules.