

Recombinant Protein Technical Manual Recombinant Human BTN3A1/CD277 Protein (Fc Tag) RPES4075

Product Data:

Product SKU: RPES4075 **Size:** 10μg

Species: Human Cells

Uniprot: 000481

Protein Information:

Molecular Mass: 50.8 kDa

AP Molecular Mass: 55 kDa

Tag: C-Fc

Bio-activity:

Purity: > 95% as determined by reducing SDS-PAGE.

Endotoxin: $< 1.0 \text{ EU per } \mu\text{g}$ as determined by the LAL method.

Storage: Lyophilized protein should be stored at < -20°C, though stable at room

temperature for 3 weeks. Reconstituted protein solution can be stored at $4-7^{\circ}$ C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C 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 3 member A1; CD277; BTN3A1; BTF5

Immunogen Information:

Sequence: Gln30-Gly254

Background:

Butyrophilin Subfamily 3 Member A1 (BTN3A1/CD277) is a type I transmembrane glycoprotein member of the Ig superfamily. It is expressed on a wide variety of immune cells. Similar to BTN3A2 and BTN3A3, BTN3A1 is composed of an extracellular N-terminal IgV and a membrane proximal IgC domain followed by a transmembrane domain and a cytoplasmic tail. These Ig domains are also found in B7 family costimulatory molecules, suggesting structural and functional similarities between the two protein families. BTN3A1 acts as a critical protein for the activation of $V\gamma9V\delta2$ T cells following detection of distressed cells. The anti-tumor responses of $V\gamma9V\delta2$ T cells may be enhanced with agonistic anti-BTNA3 antibodies.