

DESCRIPTION

Source Human embryonic kidney cell, HEK293-derived
Gln29-Ala248, with a C-terminal 6-His tag
Accession # Q7KYR7

N-terminal Sequence Analysis No results obtained. Gln29 predicted

Predicted Molecular Mass 25 kDa

SPECIFICATIONS

SDS-PAGE 39-44 kDa, reducing conditions

Activity Measured by its binding ability in a functional ELISA.
When Recombinant Human BTN2A1 is immobilized at 1 µg/mL (100 µL/well), the concentration of Recombinant Human DC-SIGN/CD209 Fc Chimera (Catalog # 161-DC) that produces 50% of the optimal binding response is approximately 0.1-0.5 µg/mL.

Endotoxin Level <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.

Formulation Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

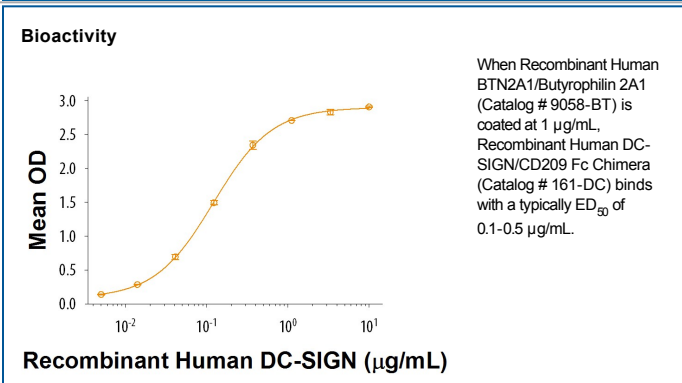
Reconstitution Reconstitute at 100 µg/mL in PBS.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & 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.

DATA



BACKGROUND

Butyrophilin 2A1 (BTN2A1) is an approximately 70 kDa widely expressed and variably glycosylated type I transmembrane glycoprotein (1). Mature human Butyrophilin 2A1 consists of a 220 amino acid (aa) extracellular domain with two immunoglobulin-like domains, a 21 aa transmembrane segment, and a 258 aa cytoplasmic domain (2). Alternative splicing generates additional isoforms of human Butyrophilin 2A1 that lack the first Ig-like domain or transmembrane segment as well as isoforms with substitutions and deletions in the cytoplasmic region. BTN2A1 is widely expressed including on colonic epithelial cells, on immune cells, and in milk fat globules (3, 4). It binds to the C-type lectin DC-SIGN on monocyte-derived dendritic cells, and this interaction can be blocked by soluble gp130 from HIV (3). The polymorphism of BTN2A1 has been associated with metabolic syndrome, type II diabetes mellitus, chronic kidney disease, and hypertension (5, 6).

References:

1. Arnett, H.A. and J.L. Viney (2014) Nat. Rev. Immunol. **14**:559.
2. Tazi-Ahnini, R. *et al.* (1997) Immunogenetics **47**:55.
3. Malcherek, G. *et al.* (2007) J. Immunol. **179**:3804.
4. Cavaletto, M. *et al.* (2002) Proteomics **2**:850.
5. Oguri, M. *et al.* (2011) J. Med. Genet. **48**:787.
6. Horibe, H. *et al.* (2014) Mol. Med. Rep. **9**:808.