



Recombinant Protein Technical Manual  
Recombinant Human CD1B/CD1A Protein (Fc Tag)  
RPES5078

### Product Data:

**Product SKU:** RPES5078

**Size:** 50µg

**Species:** Human

**Expression host:** HEK293 Cells

**Uniprot:** NP\_001755

### Protein Information:

**Molecular Mass:** 58.6 kDa

**AP Molecular Mass:** 59-69 kDa

**Tag:** C-Fc

**Bio-activity:**

**Purity:** > 88 % as determined by reducing 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°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 sterile PBS, pH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** CD1;CD1A;CD1B;R1

## Immunogen Information:

**Sequence:** Met 1-Ser 303

## Background:

CD1B contains 1 Ig-like (immunoglobulin-like) domain and belongs to the CD1 family. CD1 family members are transmembrane glycoproteins, which are structurally related to the major histocompatibility complex (MHC) proteins and form heterodimers with beta-2-microglobulin. During protein synthesis and maturation, they bind endogenous lipids that are replaced by lipid or glycolipid antigens when the proteins are internalized and pass through endosomes, before trafficking back to the cell surface. CD1B localizes to late endosomes and lysosomes via a tyrosine-based motif in the cytoplasmic tail, and requires vesicular acidification to bind lipid antigens. . It is expressed on cortical thymocytes, epidermal Langerhans cells, dendritic cells, on certain T-cell leukemias, and in various other tissues. CD1B is an antigen-presenting protein that binds self and non-self lipid and glycolipid antigens and presents them to T-cell receptors on natural killer T-cells.