



# Recombinant Protein Technical Manual

## Recombinant Rat CLEC2D/OCIL Protein (Fc Tag)

RPES5099

### Product Data:

**Product SKU:** RPES5099

**Size:** 20µg

**Species:** Rat

**Expression host:** HEK293 Cells

**Uniprot:** NP\_569086.1

### Protein Information:

**Molecular Mass:** 44 kDa

**AP Molecular Mass:** 44-54 & 36 kDa

**Tag:** N-Fc

**Bio-activity:**

**Purity:** (76.7+14.8) % as determined by SDS-PAGE

**Endotoxin:** < 1.0 EU per µg of the protein 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:** CLEC2D

## Immunogen Information:

**Sequence:** Lys98-Leu233

## Background:

Lectin-like transcript 1 (LLT1) encoded by CLEC2D gene is a C-type lectin-like molecule interacting with human CD161 (NKR-P1A) receptor expressed by natural killer cells and subsets of T cells. CLEC2D transcripts were detected primarily in hematopoietic cell lines and were found to be co-induced by the same activation signals. Although very low amounts of putative soluble CLEC2D protein isoforms could be produced by transfectants, CLEC2D isoforms 2 and 4 were efficiently expressed. CLEC2D uses gene splicing to generate protein isoforms that are structurally distinct and that have different biological activities. Prostate cancer is the most common type of cancer diagnosed and the second leading cause of cancer-related death in American men. Natural Killer (NK) cells are the first line of defense against cancer and infections. NK cell function is regulated by a delicate balance between signals received through activating and inhibitory receptors. Previously, we identified Lectin-like transcript (LLT1/OCIL/CLEC2D) as a counter-receptor for the NK cell inhibitory receptor NKRP1A (CD161). Interaction of LLT1 expressed on target cells with NKRP1A inhibits NK cell activation.