



# Recombinant Protein Technical Manual

## Recombinant Human SLAMF5/CD84 Protein (aa 22-220, His Tag)

RPES5069

### Product Data:

**Product SKU:** RPES5069

**Size:** 10µg

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** Q9UIB8

### Protein Information:

**Molecular Mass:** 23.1 kDa

**AP Molecular Mass:** 35-43 kDa

**Tag:** C-6His

**Bio-activity:**

**Purity:** > 95 % 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 a 0.2 µm filtered solution of PBS, pH7.4.

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

**Application:**

**Synonyms:** SLAM family member 5; Cell surface antigen MAX.3; Hly9-beta; Leukocyte differentiation antigen CD84; Signaling lymphocytic activation molecule 5; CD84; SLAMF5;hCD84;LY9B;mCD84

## Immunogen Information:

**Sequence:** Lys22-Arg220

## Background:

SLAM family member 5 (SLAMF5/CD84) is a type I transmembrane protein in the SLAM subgroup of the CD2 family. SLAM family proteins regulate multiple aspects of immune system function. Mature human CD84 consists of a 204 amino acid (aa) extracellular domain (ECD) with two Iglike domains, a 21 aa transmembrane segment, and a 99 aa cytoplasmic domain with two immunoreceptor tyrosinebased switch motifs (ITSMs). CD84 exhibits homophilic binding which is mediated by the N-terminal Ig-like domain. Ligation induces tyrosine phosphorylation in the cytoplasmic ITSMs which then recruit the signaling adaptor molecules SAP (SLAM-associated protein) and EAT-2 (EWS/Fli1-activated transcript 2). CD84 signaling inhibits Fc epsilon RI-induced mast cell activation but enhances platelet activation, LPS-induced macrophage activation, T cell proliferation and IFN- $\gamma$  production, and the interactions between T cells and B cells that are required for germinal center formation.