Human SLAMF5 ECD (Extracellular Domain), Fc-fusion, Recombinant

**Background:**
SLAMF5 (signaling lymphocytic activation molecule family member5), also known as Ly9B and CD84, is a single-pass type I transmembrane glycoprotein that belongs to the SLAM subfamily of the CD2 protein family of the Ig (immunoglobulin) superfamily. Most SLAM family members function as adhesion molecules and co-receptors for lymphocyte activation and mediate tyrosine phosphorylation signals. SLAMF5 contains 1 Ig-like V-type and 1 Ig-like C2-type domains in the extracellular region and 2 ITSM (immunoreceptor tyrosine switch motifs) in the cytoplasmic region. SLAMF5 exhibits extensive, cell type-specific glycosylation and homophilic binding that is mediated by its Ig-like V-type domain. The homophilic interaction induces tyrosine phosphorylation in the cytoplasmic ITSMs, which in turn recruit the signaling adaptor molecules and activates downstream events. SLAMF5 is widely expressed among hematopoietic cells including hematopoietic stem cells, myeloid cells, platelets, megakaryocytes, and lymphocytes. SLAMF5 signaling modulates both adaptive and innate immune responses. It inhibits mast cell activation but enhances platelet activation, macrophage activation, T cell proliferation and IFN-γ production as well as the interactions between T cells and B cells for germinal center formation.

**References:**

**Construct Detail:**
The recombinant human SLAMF5-Fc fusion protein is expressed as a 431-amino acid protein consisting of Lys22 - Gly225 region of SLAMF5 (UniProt accession #Q9UIB8) and a C-terminal Fc from human IgG1, which exists as a dimer under non-reducing conditions.

**Source:**
Human cells stably expressing SLAMF5-Fc and growing in chemical-defined media with no animal component or antibiotics.

**M.W.:**
Calculated molecular mass 48.2 kDa; estimated by SDS-PAGE under reducing condition 65-75 kDa probably due to glycosylation. Calculated extinction coefficients (M-1 cm-1, at 280nm): 61935.

**Purity:**
>95% judged by SDS-PAGE under reducing condition (see the gel image inserted).

**Formulation:**
Supplied at 0.5 mg/ml in sterile PBS pH7.4 (concentration determined by UV spectrometry and verified by SDS-PAGE and Coomassie blue staining).

**Endotoxin:**
<0.1 EU per 1 μg of purified recombinant protein determined by the LAL method.

**Bioactivity:**
Immobilized SLAMF5 interacts homophilicly with SLAMF5 in a functional ELISA and enhances the proliferation of PHA-stimulated T cells in the presence of anti-CD3ε antibody.

**Storage:**
The product is shipped at 4°C. Upon receipt, centrifuge the product briefly before opening the vial. Store small aliquots at the temperature below –20°C for long-term storage and the product is stable for at least 3 months. Avoid repeated freeze-thaw cycles.

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