

## HUMAN FLT3 LIGAND PROTEIN, MFC-HIS TAG

**Cat.#:** 11161

**Product Name:** Human FLT3 Ligand Protein

**Size:** 10 µg, 50 µg and 100 µg

**Synonyms:** FLT3LG;FL;FLT3L;Flt3 ligand

**Target:** FLT3 Ligand

**UNIPROT ID:** P49771

**Description:** Recombinant human FLT3 Ligand protein with C-terminal mouse Fc and 6xHis tag

**Background:** FMS-like tyrosine kinase 3 ligand (Flt-3 Ligand) is also known as FL, Flt3L and FLT3LG, is an  $\alpha$ -helical cytokine that promotes the differentiation of multiple hematopoietic cell lineages. FLT3LG is expressed as a noncovalently linked dimer by T cells and bone marrow and thymic fibroblasts. Each 36 kDa chain carries approximately 12 kDa of N- and O-linked carbohydrates. FLT3LG is structurally homologous to stem cell factor (SCF) and colony stimulating factor 1 (CSF-1). FLT3LG acts as a growth factor that increases the number of immune cells by activating the hematopoietic progenitors. It also induces the mobilization of the hematopoietic progenitors and stem cells in vivo which may help the system to kill cancer cells. FLT3LG induces the expansion of monocytes and immature dendritic cells as well as early B cell lineage differentiation. FLT3LG cooperates with IL2, IL6, IL7, and IL15 to induce NK cell development and with IL3, IL7 and IL11 to induce terminal B cell maturation. Animal studies also show FLT3LG to reduce the severity of experimentally induced allergic inflammation. FLT3LG is crucial for steady-state pDC and cDC development. A lack of FLT3L results in low levels of DCs.

**Species/Host:** HEK293

**Molecular Weight:** The protein has a predicted molecular mass of 45.6 kDa after removal of the signal peptide.

**Molecular Characterization:** FLT3 Ligand(Thr27-Pro185) mFc(Pro99-Lys330) 6xHis tag

**Purity:** The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.

**Formulation & Reconstitution:** Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization.

**Storage & Shipping:** Store at  $-20^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$  for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at  $-80^{\circ}\text{C}$  (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.

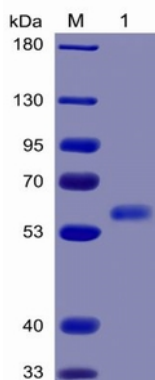


Figure 1. Human FLT3 Ligand Protein, mFc-His Tag on SDS-PAGE under reducing condition.

### Human FLT3 Ligand, mFc-His Tagged protein ELISA

0.2 µg of Human FLT3 Ligand, mFc-His Tagged protein per well

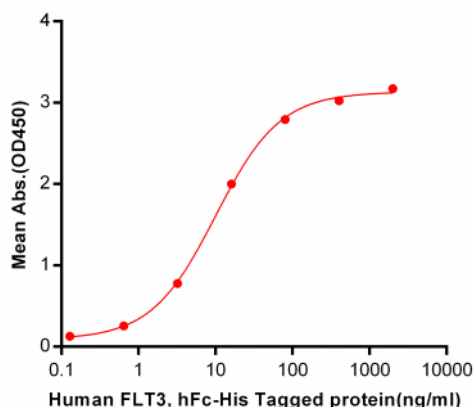


Figure 2. ELISA plate pre-coated by 2 µg/ml (100 µl/well) Human FLT3LG, mFc-His tagged protein (11161) can bind Human FLT3, hFc-His tagged protein 11135 in a linear range of 0.128-10.02 ng/ml.