# Human FLT-3 / CD135 / FLK-2 Protein (His Tag)

**Catalog Number:** **10445-H08H**

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## General Information

**Gene Name Synonym:**

CD135; FLK-2; FLK2; STK1; B230315G04; CD135; Flk-2; Flk2; Flt-3; Ly72; wmfl

**Protein Construction:**

A DNA sequence encoding the extracellular domain of human FLT3 (NP_004110.2) (Met 1-Asn 541) was expressed, with a C-terminal polyhistidine tag.

**Source:** Human

**Expression Host:** Human Cells

## QC Testing

**Purity:** > 85 % as determined by SDS-PAGE

**Bio Activity:**

**Measured by its ability to bind biotinylated human FLT3L-His (Cat:10315-H07B) in a functional ELISA.**

**Endotoxin:**

< 1.0 EU per μg of the protein as determined by the LAL method

**Stability:**

Samples are stable for up to twelve months from date of receipt at -70 ℃

**Predicted N terminal:** Asn 27

**Molecular Mass:**

The recombinant human FLT3 consists of 526 amino acids and has a predicted molecular mass of 59.7 kDa. In SDS-PAGE under reducing conditions, it migrates with an apparent molecular mass of 85-95 kDa due to glycosylation.

**Formulation:**

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

**Storage:**

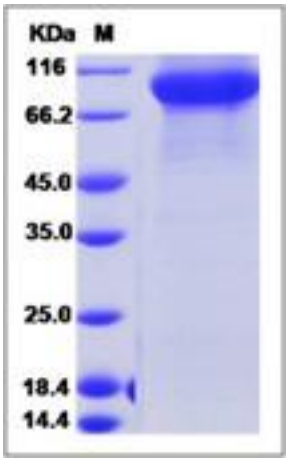
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

**Reconstitution:**

Detailed reconstitution instructions are sent along with the products.

**SDS-PAGE:**




## Protein Description

The cluster of differentiation (CD) system is commonly used as cell markers in immunophynotyping. Different kinds of cells in the immune system can be identified through the surface CD molecules which associating with the immune function of the cell. There are more than 320 CD unique clusters and subclusters have been identified. Some of the CD molecules serve as receptors or ligands important to the cell through initiating a signal cascade which then alter the behavior of the cell. Some CD proteins do not take part in cell signal process but have other functions such as cell adhesion. CD135, also known as FLT-3, FLK-2, is a member of the CD system. CD135 is an important cell surface marker recognized by specific sets of antibodies to identify the types of hematopoietic (blood) progenitors in the bone marrow and it function to differentiate hematopoietic stem cells, which are CD135 negative, from multipotent progenitors, which are CD135 positive. CD135 is a receptor tyrosine kinase typeⅢ for the cytokine Flt3 ligand and activat signaling through second messengers by binding to Flt3. Signaling through CD135 is important for lymphocyte development. The encoding gene CD135 is a proto-oncogene to which mutations happened will lead to cancer such as leukemia.

**References**

1.Zola H, *et al.* (2007) CD molecules 2006-human cell differentiation molecules. J Immunol Methods. 318 (1-2): 1-5.
2.Ho IC, *et al.* (2009) GATA3 and the T-cell lineage: essential functions before and after T-helper-2-cell differentiation. Nat Rev Immunol. 9 (2): 125-35.
3.Matesanz-Isabel J, *et al.* (2011) New B-cell CD molecules. Immunology Letters.134 (2): 104-12.