

**Synonym**

CD117,SCFR,c-Kit,KIT

**Source**

Human CD117, Fc Tag(CD7-H5255) is expressed from human 293 cells (HEK293). It contains AA Gln 26 - Thr 516 (Accession # [P10721-2](#)).

Predicted N-terminus: Gln 26

**Molecular Characterization**

CD117(Gln 26 - Thr 516) P10721-2	Fc(Pro 100 - Lys 330) P01857
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This protein carries a human IgG1 Fc tag at the C-terminus

The protein has a calculated MW of 81.9 kDa. The protein migrates as 95-120 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>95% as determined by SDS-PAGE.

**Formulation**

Lyophilized from 0.22 µm filtered solution in

Tris with Glycine, Arginine and NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

**Reconstitution**

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

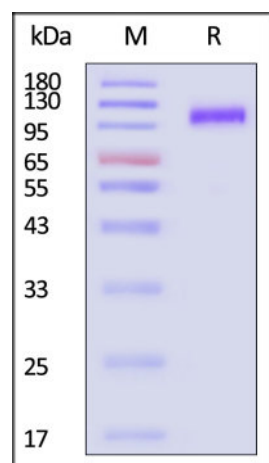
**Storage**

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

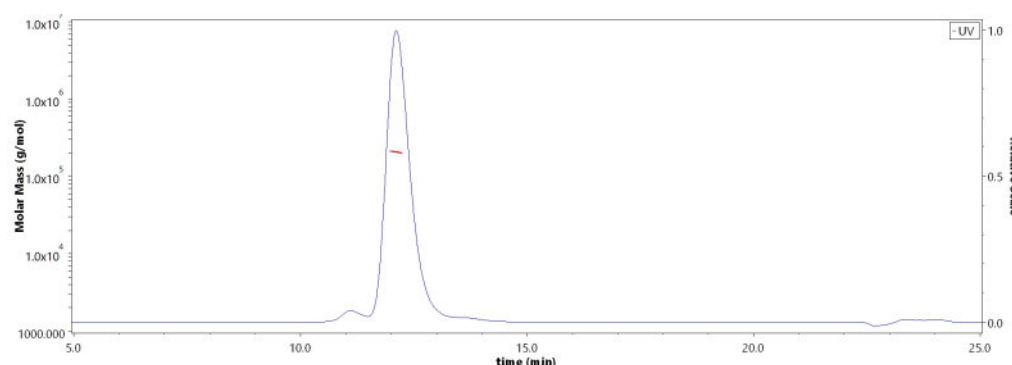
*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

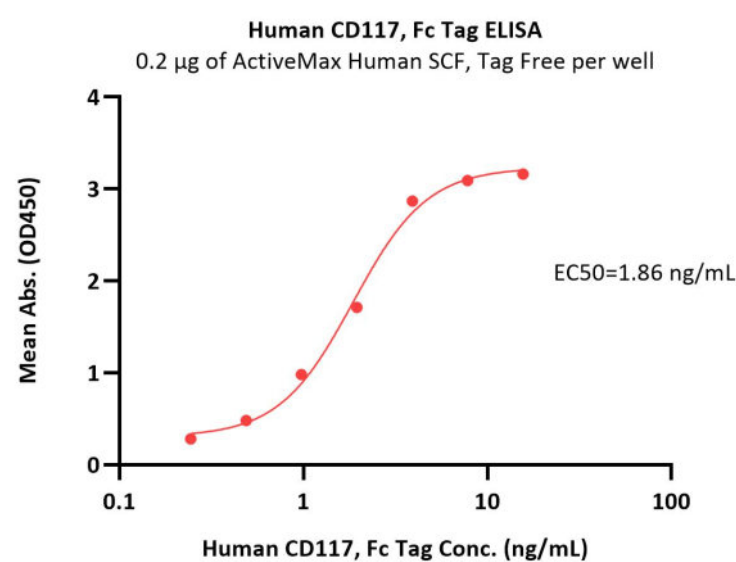
**SDS-PAGE**

Human CD117, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

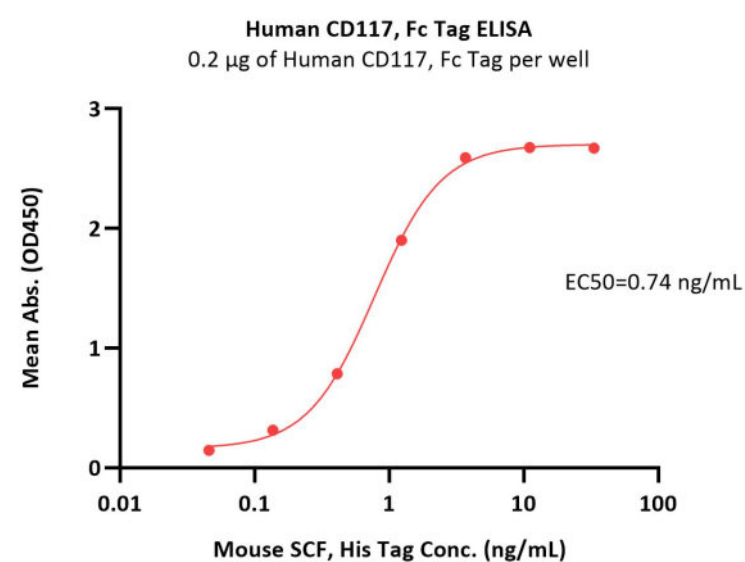
**Bioactivity-ELISA****SEC-MALS**

The purity of Human CD117, Fc Tag (Cat. No. CD7-H5255) is more than 85% and the molecular weight of this protein is around 185-225 kDa verified by SEC-MALS.

[Report](#)



Immobilized ActiveMax® Human SCF, Tag Free at 2 µg/mL (100 µL/well) can bind Human CD117, Fc Tag (Cat. No. CD7-H5255) with a linear range of 0.4-2 ng/mL (QC tested).



Immobilized Human CD117, Fc Tag (Cat. No. CD7-H5255) at 2 µg/mL (100 µL/well) can bind Mouse SCF, His Tag (Cat. No. SCF-M5228) with a linear range of 0.05-1 ng/mL (Routinely tested).

## Background

Mast/stem cell growth factor receptor Kit (c-Kit), a member of the protein kinase superfamily, Tyr protein kinase family and CSF-1/PDGF receptor subfamily, is also known as piebald trait protein (PBT), p145 c-kit, tyrosine-protein kinase Kit and CD117, which contains five Ig-like C2-type (immunoglobulin-like) domains and one protein kinase domain. CD117 acts as cell-surface receptor for the cytokine KITLG/SCF and plays an essential role in the regulation of cell survival and proliferation, hematopoiesis, stem cell maintenance, gametogenesis, mast cell development, migration and function, and in melanogenesis. In response to KITLG/SCF binding, CD117 can activate several signaling pathways. Furthermore, Activated KIT promotes phosphorylation of the protein phosphatases PTPN6/SHP-1 and PTPRU, and of the transcription factors STAT1, STAT3, STAT5A and STAT5B.

## Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.