



Synonym

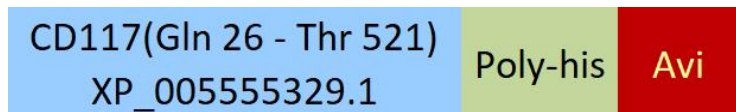
CD117,SCFR,c-Kit,KIT

Source

Biotinylated Cynomolgus CD117 Protein, His,Avitag(CD7-C82E4) is expressed from human 293 cells (HEK293). It contains AA Gln 26 - Thr 521 (Accession # [XP_005555329.1](#)).

Predicted N-terminus: Gln 26

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 59.3 kDa. The protein migrates as 75-100 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 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

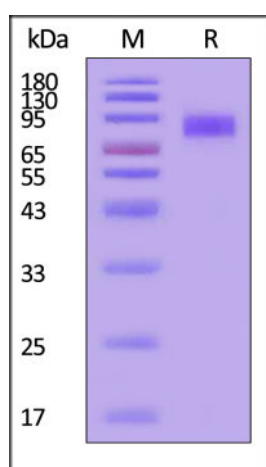
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

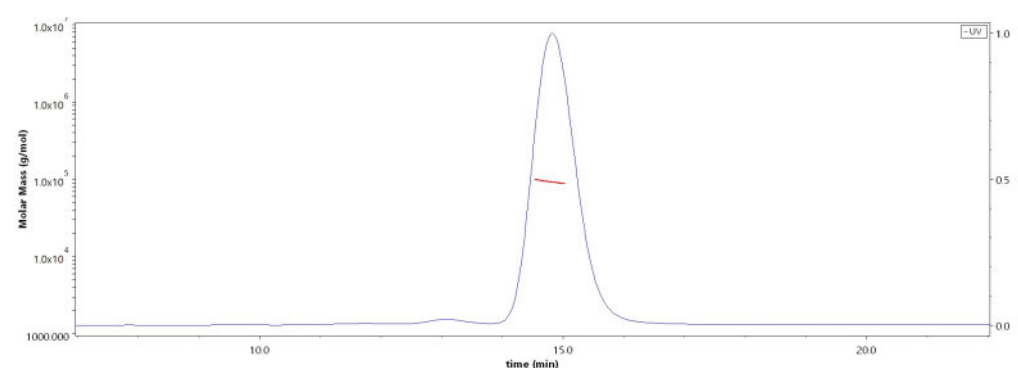
SDS-PAGE



Biotinylated Cynomolgus CD117 Protein, His,Avitag 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

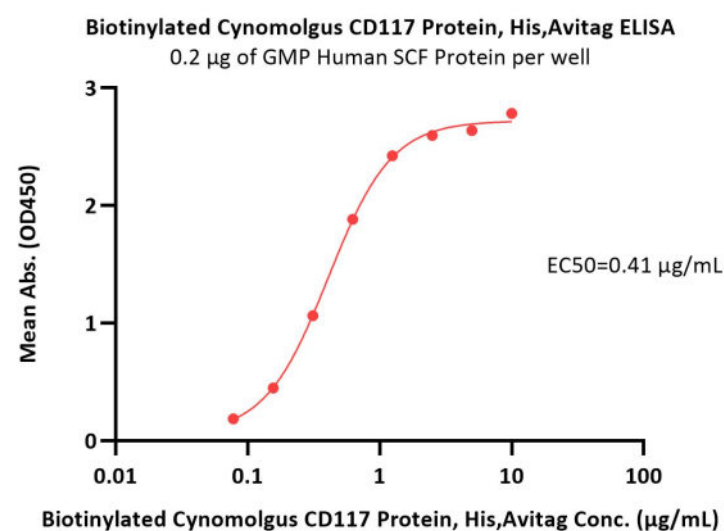
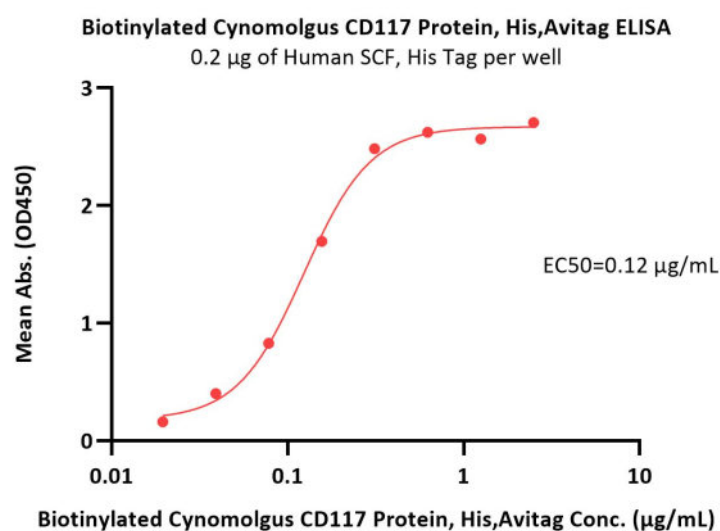


The purity of Biotinylated Cynomolgus CD117 Protein, His,Avitag (Cat. No. CD7-C82E4) is more than 90% and the molecular weight of this protein is around 75-105 kDa verified by SEC-MALS.

[Report](#)

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Immobilized Human SCF, His Tag (Cat. No. SCF-H52H3) at 2 µg/mL (100 µL/well) can bind Biotinylated Cynomolgus CD117 Protein, His,Avitag (Cat. No. CD7-C82E4) with a linear range of 0.02-0.313 µg/mL (QC tested).

Immobilized GMP Human SCF Protein (Cat. No. GMP-SCFH25) at 2 µg/mL (100 µL/well) can bind Biotinylated Cynomolgus CD117 Protein, His,Avitag (Cat. No. CD7-C82E4) with a linear range of 0.078-1.25 µg/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

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