FITC-Labeled Human CD117 / c-kit Protein, His TagStar Staining (HPLC verified)

Catalog # CD7-HF2H4

Synonyms

CD117, SCFR, c-Kit, KIT

Source

FITC-Labeled Human CD117 Protein, His Tag (CD7-HF2H4) is produced via conjugation of FITC to Human CD117, His Tag with a new generation site-specific technology under Star Staining labeling platform. Human CD117, His Tag is expressed from human 293 cells (HEK293). It contains AA Gln 26 - Thr 516 (Accession # P10721-2).

Predicted N-terminus: Gln 26

Molecular Characterization

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 71.8 kDa. The protein migrates as 95-130 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Conjugate

FITC

Excitation source: 488 nm spectral line, argon-ion laser

Excitation Wavelength: 488 nm

Emission Wavelength: 535 nm

Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-HPLC.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4, 0.05% Proclin300 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.

Shipping and Storage

This product is shipped at ambient temperature.

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

Please protect from light and avoid repeated freeze-thaw cycles.

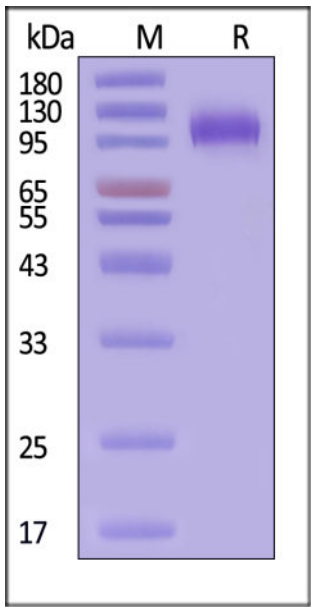
This product is stable after storage at:

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

ACRO Quality Management System

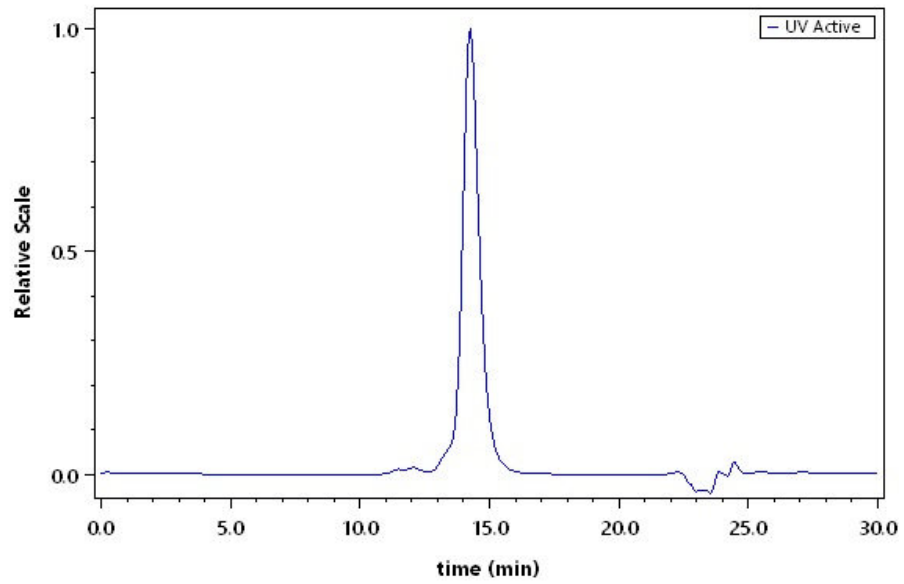
- QMS(ISO, GMP)
- Quality Advantages
- Quality Control Process

SDS-PAGE



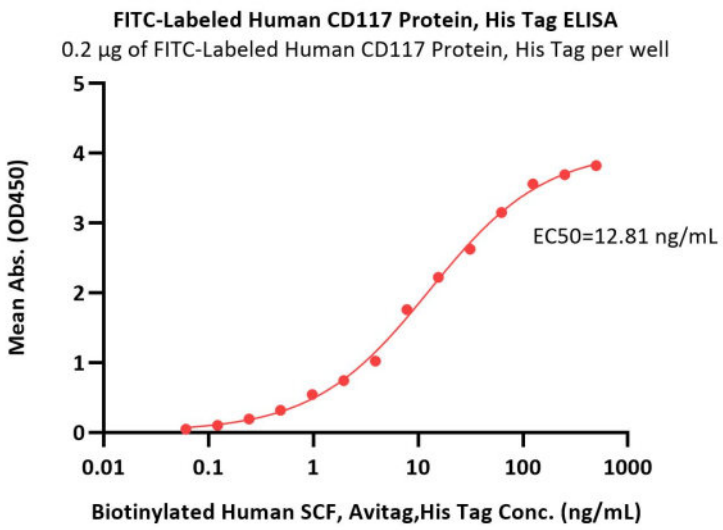
FITC-Labeled Human CD117 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-HPLC



The purity of FITC-Labeled Human CD117 Protein, His Tag (Cat. No. CD7-HF2H4) was greater than 90% as determined by SEC-HPLC.

Bioactivity-ELISA



Immobilized FITC-Labeled Human CD117 Protein, His Tag (Cat. No. CD7-HF2H4) at 2 μg/mL (100 μL/well) can bind Biotinylated Human SCF, Avitag,His Tag (Cat. No. SCF-H82E1) with a linear range of 0.06-16 ng/mL (QC 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.