Biotinylated Human STEAP1 Full Length Protein, Avitag™,Flag&His Tag (Detergent)

Catalog # ST1-H82D3

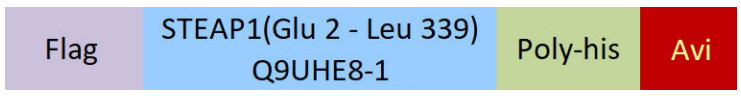
Synonym

STEAP1, PRSS24, STEAP

Source

Biotinylated Human STEAP1 Full Length Protein, Avitag,Flag&His Tag(ST1-H82D3) is expressed from human 293 cells (HEK293). It contains AA Glu 2 - Leu 339 (Accession # Q9UHE8-1).
Predicted N-terminus: Asp

Molecular Characterization



This protein carries a Flag tag at the N-terminus, and a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™). The protein has a calculated MW of 44.7 kDa. The protein migrates as 40-43 kDa and 65-70 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.

Biotinylation

As determined by Quantitative ELISA binding assay against streptavidin.

Purity

>90% as determined by SDS-PAGE.

Formulation

This product is not suitable for cell based experiments due to cytotoxicity of detergent.
Detergent buffer is INDISPENSABLE to keep membrane protein soluble and active, under no circumstance should you remove detergent.
Detergent buffer is sold separately and not included in protein, and please contact us if you need the buffer.
If glycerol is not compatible to your application, remove glycerol just before immediate experiment, and NEVER store glycerol-free protein solution.

Supplied as 0.2 μm filtered solution in 50 mM HEPES, 150 mM NaCl, Buffer A, pH7.5 with glycerol as protectant.

Contact us for customized product form or formulation.

Shipping

This product is supplied and shipped with dry ice, please inquire the shipping cost.

Storage

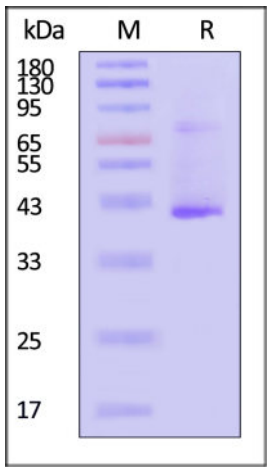
Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

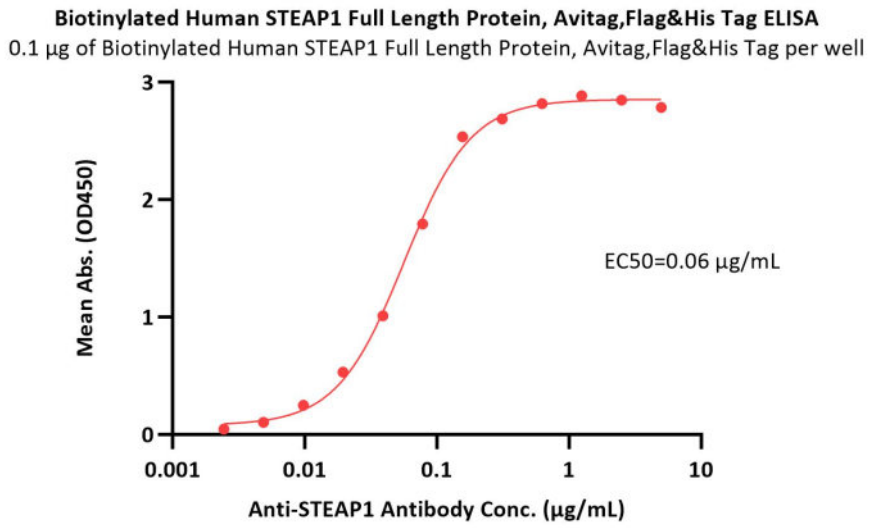
*The detergent Buffer A (Cat. No. DN-12) is sold separately and not included in protein. You can learn about the product information through this link. We recommend DN-12 for ELISA assay and DC-11 for SPR/BLI assay.

SDS-PAGE



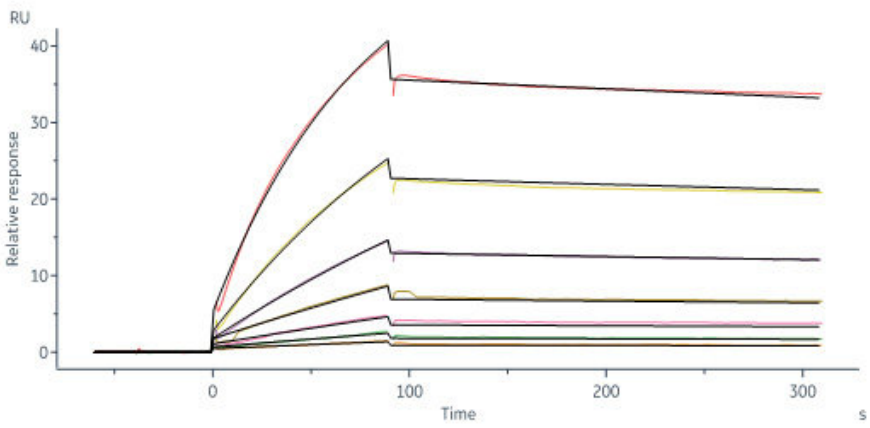
Biotinylated Human STEAP1 Full Length Protein, Avitag,Flag&His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

Bioactivity-ELISA



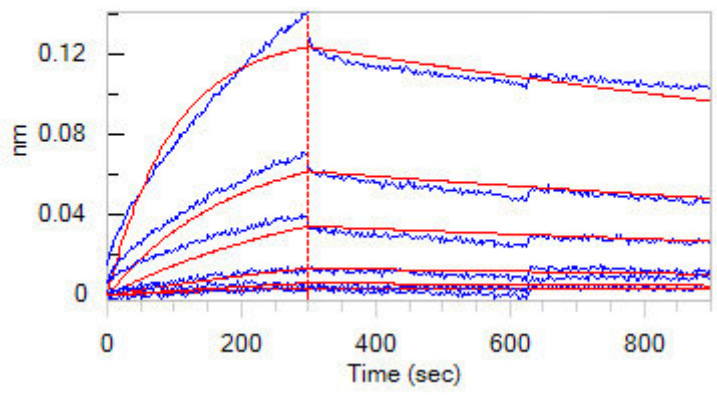
Immobilized Biotinylated Human STEAP1 Full Length Protein, Avitag,Flag&His Tag (Cat. No. ST1-H82D3) at 1 μg/mL (100 μL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 μg/well) plate can bind Anti-STEAP1 Antibody with a linear range of 0.002-0.156 μg/mL (QC tested).

Bioactivity-SPR



Anti-STEAP1 Antibody captured on Protein A Chip can bind Biotinylated Human STEAP1 Full Length Protein, Avitag,Flag&His Tag (Cat. No. ST1-H82D3) with an affinity constant of 12.8 nM as determined in a SPR assay (in presence of DDM and CHS) (Biacore 8K) (Routinely tested).

Bioactivity-BLI



Loaded Anti-STEAP1 Antibody on Protein A Biosensor, can bind Biotinylated Human STEAP1 Full Length Protein, Avitag,Flag&His Tag (Cat. No. ST1-H82D3) with an affinity constant of 8.26 nM as determined in BLI assay (in presence of DDM and CHS) (ForteBio Octet R8) (Routinely tested).

Background

Six-transmembrane epithelial antigen of the prostate 1 (STEAP1) is an integral membrane protein that is highly up-regulated on the cell surface of several human cancers, making it a promising therapeutic target to manage these diseases. It shares sequence homology with three enzymes (STEAP2-STEAP4) that catalyze the NADPH-dependent reduction of iron(III). Taking into account its high specificity and overexpression in human cancers, STEAP1 is nowadays a promising candidate to be imposed as a therapeutic target.