

Synonym

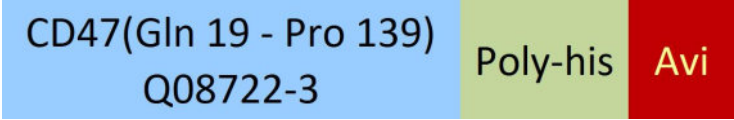
CD47,MER6,IAP,OA3

Source

Unconjugated Human CD47, His,Avitag(CD7-HA2E9) is expressed from human 293 cells (HEK293). It contains AA Gln 19 - Pro 139 (Accession # [Q08722-3](#)).

Predicted N-terminus: Gln 19

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 16.9 kDa. The protein migrates as 33-40 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Application

CD7-HA2E9 is the unconjugated version of CD7-H82E9 (Biotinylated Human CD47, His,Avitag). It can be utilized for assay development or customized biotinylation according to the experimental designs.

Endotoxin

Less than 1.0 EU per µg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-HPLC.

Formulation

Lyophilized from 0.22 µm filtered solution in 10 mM Bicine, pH8.3 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

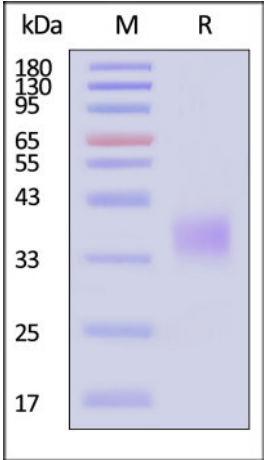
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

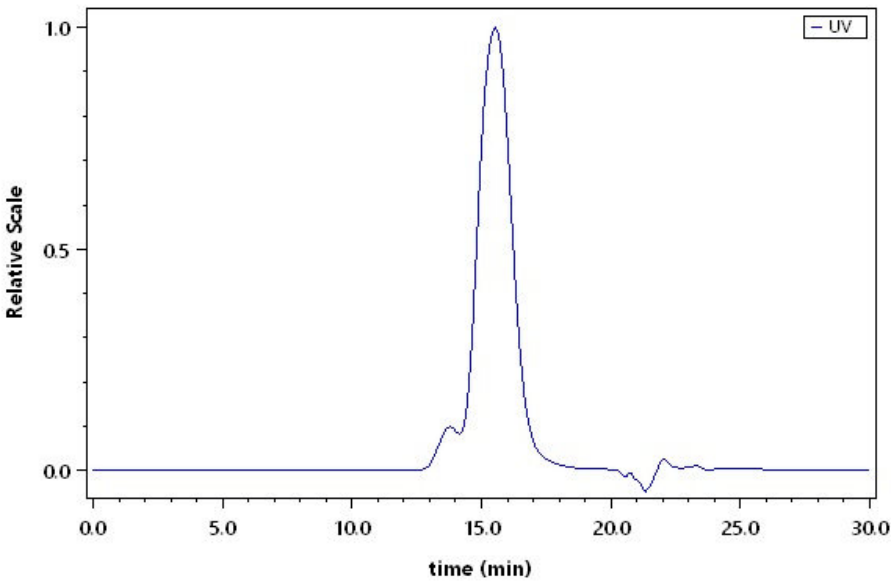
- 20°C to -70°C for 12 months in lyophilized state;
- 70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Unconjugated Human CD47, 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](#)).

SEC-HPLC



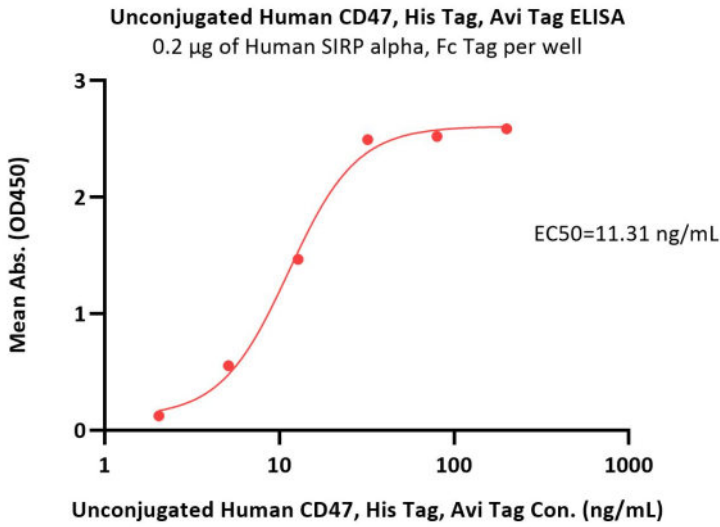
The purity of Unconjugated Human CD47, His,Avitag (Cat. No. CD7-HA2E9) was greater than 90% as determined by SEC-HPLC.

Bioactivity-ELISA

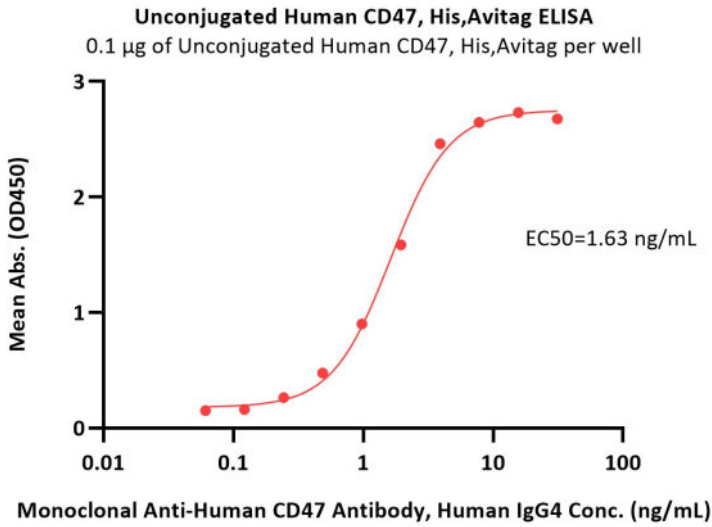


Unconjugated Human CD47 Protein, His,Avitag™ (HPLC verified)

Catalog # CD7-HA2E9



Immobilized Human SIRP alpha, Fc Tag (Cat. No. SIA-H5251) at 2 µg/mL (100 µL/well) can bind Unconjugated Human CD47, His,Avitag (Cat. No. CD7-HA2E9) with a linear range of 2-13 ng/mL (QC tested).



Immobilized Unconjugated Human CD47, His,Avitag (Cat. No. CD7-HA2E9) at 1 µg/mL (100 µL/well) can bind Monoclonal Anti-Human CD47 Antibody, Human IgG4 with a linear range of 0.06-4 ng/mL (QC tested).

Background

Leukocyte surface antigen CD47 is also known as Antigenic surface determinant protein OA3, Integrin-associated protein (IAP) and Protein MER6. CD47 contains 1 Ig-like V-type (immunoglobulin-like) domain. CD47 is very broadly distributed on normal adult tissues. CD47 has a role in both cell adhesion by acting as an adhesion receptor for THBS1 on platelets, and in the modulation of integrins and plays an important role in memory formation and synaptic plasticity in the hippocampus by similarity. CD47 is the receptor for SIRPA, binding to which prevents maturation of immature dendritic cells and inhibits cytokine production by mature dendritic cells. CD47 Interaction with SIRPG mediates cell-cell adhesion, enhances superantigen-dependent T-cell-mediated proliferation and costimulates T-cell activation.

