

Human CD47 Protein

Cat. No. CD7-HM147

Description

Source	Recombinant Human CD47 is expressed from HEK293 with His tag at the C-Terminus. It contains Gln19-Pro139.
Accession	Q08722-1
Molecular Weight	The protein has a predicted MW of 14.5 kDa. Due to glycosylation, the protein migrates to 40-55 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1EU per μg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

Formulation and Storage

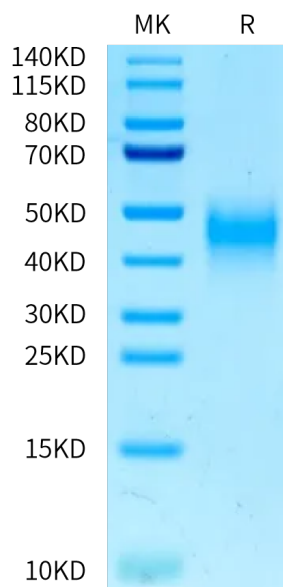
Formulation	Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

CD47 (Cluster of Differentiation 47) also known as integrin associated protein (IAP) is a transmembrane protein that in humans is encoded by the CD47 gene. CD47 belongs to the immunoglobulin superfamily and partners with membrane integrins and also binds the ligands thrombospondin-1 (TSP-1) and signal-regulatory protein alpha (SIRP α). CD-47 acts as a don't eat me signal to macrophages of the immune system which has made it a potential therapeutic target in some cancers.

Assay Data

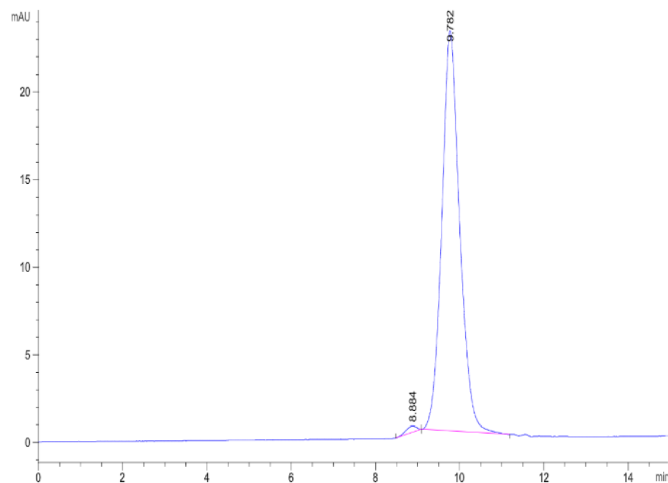
Bis-Tris PAGE



Human CD47 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC

Assay Data

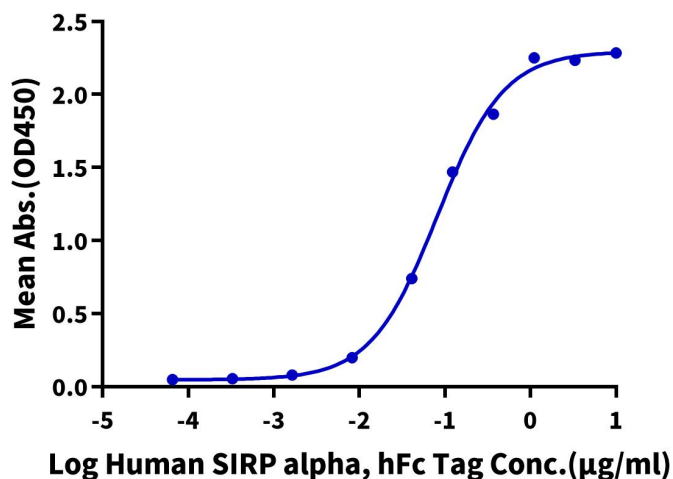


The purity of Human CD47 is greater than 95% as determined by SEC-HPLC.

ELISA Data

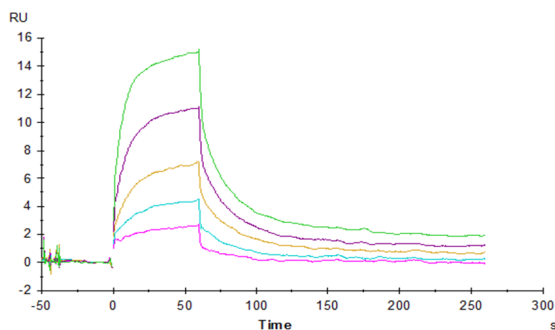
Human CD47, His Tag ELISA

0.2µg Human CD47, His Tag Per Well



Immobilized Human CD47, His Tag at 2µg/ml (100µl/well) on the plate. Dose response curve for Human SIRP alpha, hFc Tag with the EC50 of 82.1ng/ml determined by ELISA (QC Test).

SPR Data



Human CD47, His Tag captured on CM5 Chip via Anti-His Antibody can bind Human SIRP alpha, hFc Tag with an affinity constant of 18.9nM as determined in SPR assay (Biacore T200).