#### Synonym

CD93,CDw93,C1QR1,MXRA4,C1qR,C1qR(P),C1qRP,ECSM3

#### Source

Biotinylated Human C1q R1, His,Avitag(C11-H82E9) is expressed from human 293 cells (HEK293). It contains AA Thr 22 - Lys 580 (Accession # <u>Q9NPY3-1</u>). Predicted N-terminus: Thr 22

## **Molecular Characterization**

C1q R1(Thr 22 - Lys 580) AAH28075 Poly-his Avi

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

The protein has a calculated MW of 62.0 kDa. The protein migrates as 80-90 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

# Labeling

Biotinylation of this product is performed using  $Avitag^{TM}$  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  $\mu g$  by the LAL method.

# SDS-PAGE

Biotinylated Human C1q R1, 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%.

# Purity

>95% as determined by SDS-PAGE.

### Formulation

Lyophilized from 0.22  $\mu m$  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.



**Bioactivity-ELISA** 

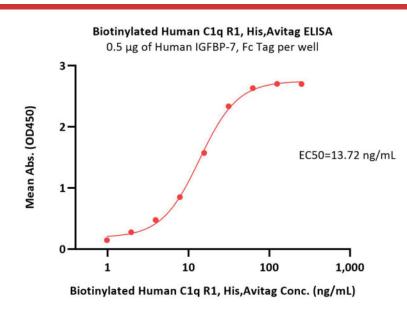
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5/12/2023

## Biotinylated Human C1q R1 / CD93 Protein, His,Avitag™

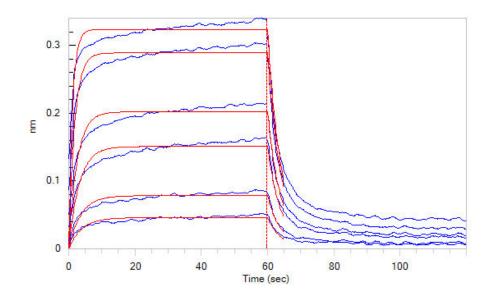


#### Catalog # C11-H82E9



Immobilized Human IGFBP-7, Fc Tag (Cat. No. IG7-H5259) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Biotinylated Human C1q R1, His,Avitag (Cat. No. C11-H82E9) with a linear range of 1-31 ng/mL (QC tested).

#### **Bioactivity-BLI**



Loaded Biotinylated Human C1q R1, His, Avitag (Cat. No. C11-H82E9) on SA Biosensor, can bind Human IGFBP-7, His Tag (Cat. No. IG7-H5240) with an affinity constant of 0.93  $\mu$ M as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

#### Background

CD antigen CD93 is also known as Complement component C1q receptor (C1QR1). which belongs to the Group XIV C-Type lectin family, a group containing two other members, endosialin (CD248) and thrombomodulin. CD93 contains one C-type lectin domain and five EGF-like domains. CD93 is highly expressed in endothelial cells, platelets, cells of myeloid origin, such as monocytes and neutrophils. CD93 is receptor for C1q, mannose-binding lectin (MBL2) and pulmonary surfactant protein A (SPA). CD93 may mediate the enhancement of phagocytosis in monocytes and macrophages upon interaction with soluble defense collagens and may play a role in intercellular adhesion.

### **Clinical and Translational Updates**

Please contact us via <u>TechSupport@acrobiosystems.com</u> if you have any question on this product.

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