### Catalog # CD1-H85D8

#### Synonym

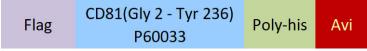
CVID6, S5.7, TAPA1, TSPAN28

#### Source

Biotinylated Human CD81 Protein, His, Avitag&Flag Tag(CD1-H85D8) is expressed from Baculovirus-Insect cells. It contains AA Gly 2 - Tyr 236 (Accession # <u>P60033</u>).

Predicted N-terminus: Met

## **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<sup>TM</sup>)

The protein has a calculated MW of 31.4 kDa. The protein migrates as 27-29 kDa under reducing (R) condition (SDS-PAGE).

# Labeling

Biotinylation of this product is performed using Avitag<sup>™</sup> 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.

# Purity

>60% as determined by SDS-PAGE.

#### Formulation

*This product is not suitable for cell based experiments due to cytotoxicity of DDM.* 

DDM and CHS are INDISPENSABLE to keep membrane protein soluble and active, under no circumastance should you remove DDM and CHS. DDM/CHS buffer (DC-11) 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, DDM, CHS, pH7.5 with glycerol as protectant.

Contact us for customized product form or formulation.

## Shipping

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

#### Storage

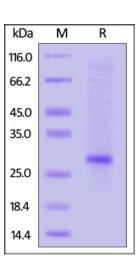
Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 12 months under sterile conditions.

\*\*The DDM/CHS buffer (Cat. No. <u>DC-11</u>) is sold separately and not included in protein, you can follow this link for product information.

# **SDS-PAGE**



Biotinylated Human CD81 Protein, His, Avitag&Flag Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 60%.

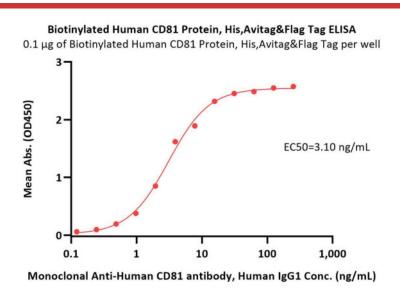
# **Bioactivity-ELISA**



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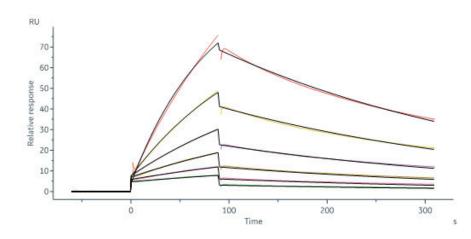


#### Catalog # CD1-H85D8



Immobilized Biotinylated Human CD81 Protein, His, Avitag&Flag Tag (Cat. No. CD1-H85D8) at 1 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 µg/well) plate can bind Monoclonal Anti-Human CD81 antibody, Human IgG1 with a linear range of 0.1-8 ng/mL (QC tested).

#### **Bioactivity-SPR**



Anti-CD81 Antibody, Human IgG1 captured on Protein A Chip can bind Biotinylated Human CD81 Protein, His, Avitag&Flag Tag (Cat. No. CD1-H85D8) with an affinity constant of 251 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

## Background

The protein encoded by this gene is a member of the transmembrane 4 superfamily, also known as the tetraspanin family. Most of these members are cell-surface proteins that are characterized by the presence of four hydrophobic domains. The proteins mediate signal transduction events that play a role in the regulation of cell development, activation, growth and motility. This encoded protein is a cell surface glycoprotein that is known to complex with integrins. This protein appears to promote muscle cell fusion and support myotube maintenance. Also it may be involved in signal transduction. This gene is localized in the tumor-suppressor gene region and thus it is a candidate gene for malignancies. Two transcript variants encoding different isoforms have been found for this gene.

## **Clinical and Translational Updates**

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

>> www.acrobiosystems.com

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