# Biotinylated Human CD79B Protein, His,Avitag™ (MALS verified)





### Synonym

CD79b,B29,IGB,Ig-beta

#### Source

Biotinylated Human CD79B, His,Avitag(CDB-H82E3) is expressed from human 293 cells (HEK293). It contains AA Ala 29 - Asp 159 (Accession # P40259-1). Predicted N-terminus: Ala 29

#### **Molecular Characterization**

CD79B(Ala 29 - Asp 159) P40259-1

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 18.8 kDa. The protein migrates as 25-35 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

### Labeling

Biotinylation of this product is performed using Avitag<sup>TM</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 µg by the LAL method.

### **Purity**

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

## **Formulation**

Lyophilized from  $0.22~\mu m$  filtered solution in PBS, 0.2~M Arginine, 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

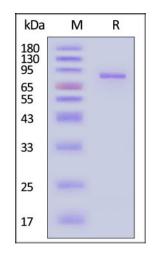
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

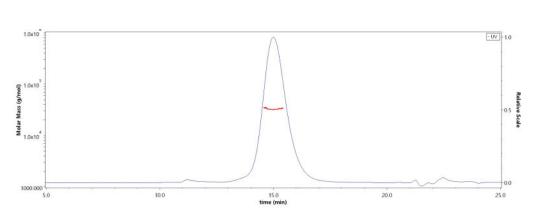
## SDS-PAGE



Biotinylated Human CD79B, His, Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

# **Bioactivity-ELISA**

## **SEC-MALS**



The purity of Biotinylated Human CD79B, His, Avitag (Cat. No. CDB-H82E3) is more than 90% and the molecular weight of this protein is around 28-42 kDa verified by SEC-MALS.

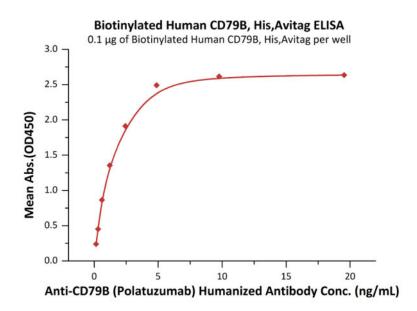
Report



# Biotinylated Human CD79B Protein, His,Avitag™ (MALS verified)







Immobilized Biotinylated Human CD79B, His,Avitag (Cat. No. CDB-H82E3) at 1  $\mu$ g/mL (100  $\mu$ L/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5  $\mu$ g/well) plate can bind Anti-CD79B (Polatuzumab) Humanized Antibody with a linear range of 0.1-2 ng/mL (Routinely tested).

# Background

B-cell antigen receptor complex-associated protein beta chain (CD79b) is also known as B-cell-specific glycoprotein B29, Ig-beta,Immunoglobulin-associated B29 protein, B29 and IGB, which is a single-pass type I membrane protein containing one Ig-like V-type (immunoglobulin-like) domain and one ITAM domain.CD79b is required in cooperation with CD79A for initiation of the signal transduction cascade activated by the B-cell antigen receptor complex (BCR).CD79b can enhance phosphorylation of CD79A, possibly by recruiting kinases which phosphorylate CD79A or by recruiting proteins which bind to CD79A and protect it from dephosphorylation. Defects in CD79b are the cause of agammaglobulinemia type 6 (AGM6) that is a primary immunodeficiency characterized by profoundly low or absent serum antibodies and low or absent circulating B cells due to an early block of B-cell development.

# **Clinical and Translational Updates**

