

Datasheet for ABIN7013417

**CD20 Protein (AA 1-297) (His tag,AVI tag,Biotin)**[Go to Product page](#)**2** Images

## Overview

Quantity:	100 µg
Target:	CD20 (MS4A1)
Protein Characteristics:	AA 1-297
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This CD20 protein is labelled with His tag,AVI tag,Biotin.

## Product Details

Specificity:	Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.
Characteristics:	Biotinylated Human CD20 / MS4A1 Full Length Protein, His,Avitag™ (Nanodisc) (HEK293)
Purity:	>90 % as determined by SDS-PAGE.
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

## Target Details

Target:	CD20 (MS4A1)
Alternative Name:	CD20 ( <a href="#">MS4A1 Products</a> )
Background:	B-lymphocyte antigen CD20 is also known as B-lymphocyte surface antigen B1, Leukocyte

## Target Details

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surface antigen Leu-16, Membrane-spanning 4-domains subfamily A member 1 and MS4A1, is an activated-glycosylated phosphoprotein expressed on the surface of all B-cells beginning at the pro-B phase (CD45R+, CD117+) and progressively increasing in concentration until maturity. CD20 is expressed on all stages of B cell development except the first and last, it is present from late pro-B cells through memory cells, but not on either early pro-B cells or plasma blasts and plasma cells. It is found on B-cell lymphomas, hairy cell leukemia, B-cell chronic lymphocytic leukemia, and melanoma cancer stem cells. The protein has no known natural ligand and its function is to enable optimal B-cell immune response, specifically against T-independent antigens. It is suspected that it acts as a calcium channel in the cell membrane. CD20 / MS4A1 is the target of the monoclonal antibodies (mAb) rituximab, Ibritumomab tiuxetan, and tositumomab, which are all active agents in the treatment of all B cell lymphomas and leukemias. Defects in CD20 / MS4A1 are the cause of immunodeficiency common variable type 5 (CVID5), also called antibody deficiency due to CD20 defect. CVID5 is a primary immunodeficiency characterized by antibody deficiency, hypogammaglobulinemia, recurrent bacterial infections and an inability to mount an antibody response to antigen.

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Molecular Weight: 36.9 kDa

NCBI Accession: [NP\\_068769](#)

## Application Details

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Comment: Ready-to-use Avitag™ biotinylated protein:

The product is exclusively produced using the Avitag™ technology. Briefly, a unique 15 amino acid peptide, the Avi tag, is introduced into the recombinant protein during expression vector construction. The single lysine residue in the Avi tag is enzymatically biotinylated by the E. Coli biotin ligase BirA.

This single-point enzymatic labeling technique brings many advantages for commonly used binding assays. The biotinylation happens on the lysine residue of Avi tag, and therefore does NOT interfere with the target protein's natural binding activities. In addition, when immobilized on an avidin-coated surface, the protein orientation is uniform because the position of the Avi tag in the protein is precisely controlled.

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Restrictions: For Research Use only

## Handling

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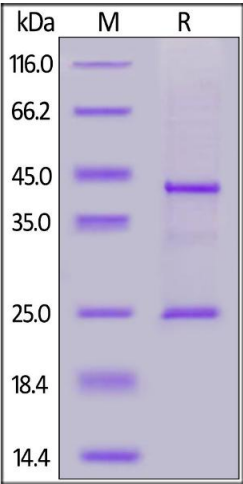
Format: Lyophilized

Handling

Buffer: 20 mM HEPES, 150 mM NaCl, pH 7.5

Storage: -20 °C

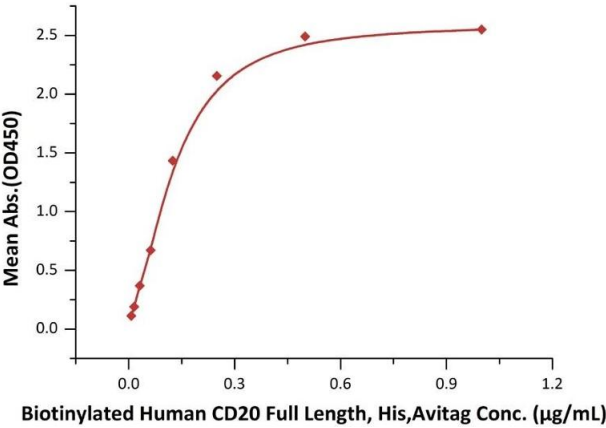
Images



SDS-PAGE

**Image 1.** Biotinylated Human CD20 Full Length, His,Avitag on under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90 % .

**Biotinylated Human CD20 Full Length, His,Avitag ELISA**  
0.5 µg of Rituximab per well



ELISA

**Image 2.** Immobilized Rituximab at 5 µg/mL (100 µL/well) can bind Biotinylated Human CD20 Full Length, His,Avitag (ABIN6972970) with a linear range of 0.008-0.125 µg/mL (QC tested).