

Recombinant Human CD19 Protein, Fc-Avi-tagged, Biotinylated

Cat. No. CD19-281H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Biotinylated Human CD19 (20-291), Fc,Avitag is expressed from human 293 cells (HEK293). It contains AA Pro 20 - Lys 291 (Accession # P15391-1).
Species	Human
Source	HEK293
ProteinLength	Pro 20 - Lys 291
Description	B-lymphocyte antigen CD19 is also known as CD19 (Cluster of Differentiation 19), is a single-pass type I membrane protein which contains two Ig-like C2-type (immunoglobulin-like) domains. CD19 is expressed on follicular dendritic cells and B cells. In fact, it is present on B cells from earliest recognizable B-lineage cells during development to B-cell blasts but is lost on maturation to plasma cells. It primarily acts as a B cell co-receptor in conjunction with CD21 and CD81. Upon activation, the cytoplasmic tail of CD19 becomes phosphorylated, which leads to binding by Src-family kinases and recruitment of PI-3 kinase. As on T cells, several surface molecules form the antigen receptor and form a complex on B lymphocytes. The (almost) B cell-specific CD19 phosphoglycoprotein is one of these molecules. The others are CD21 and CD81. These surface immunoglobulin (sIg)-associated molecules facilitate signal transduction. On living B cells, anti-immunoglobulin antibody mimicking exogenous antigen causes CD19 to bind to sIg and internalize with it. The reverse process has not been demonstrated, suggesting that formation of

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this receptor complex is antigen-induced. This molecular association has been confirmed by chemical studies. Mutations in CD19 are associated with severe immunodeficiency syndromes characterized by diminished antibody production. CD19 has been shown to interact with: CD81, CD82, Complement receptor 2, and VAV2.

Predicted N Terminal	Pro 20
Form	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.
Molecular Mass	The protein has a calculated MW of 58.9 kDa. The protein migrates as 65-80 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.
Endotoxin	Less than 1.0 EU per µg by the LAL method.
Purity	>90% as determined by SDS-PAGE.
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.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.
Conjugation	Biotin

GENE INFORMATION

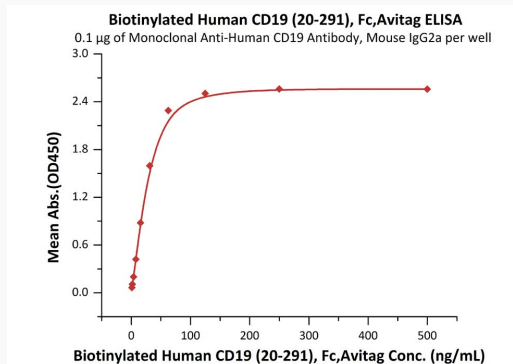
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Gene Name	CD19 CD19 molecule [Homo sapiens]
Official Symbol	CD19
Synonyms	CD19; B4; CVID3; MGC12802
Gene ID	930
mRNA Refseq	NM_001178098
Protein Refseq	NP_001171569
MIM	107265
UniProt ID	P15391

Bioactivity-ELISA



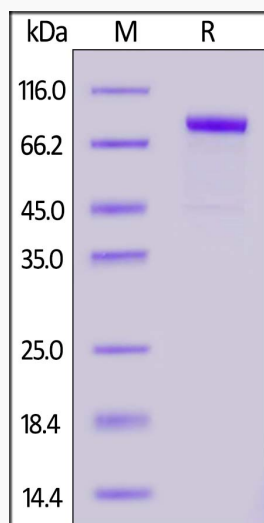
Immobilized Monoclonal Anti-Human CD19 Antibody, Mouse IgG2a at 1 µg/mL (100 µL/well) can bind Biotinylated Human CD19 (20-291), Fc,Avitag with a linear range of 1-63 ng/mL.

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SDS-PAGE



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