

Active Recombinant Monkey CD19 Protein, His&Avi-tagged, Biotin-labeled

Cat. No. CD19-11035M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Biotinylated Cynomolgus/Rhesus macaque CD19 Protein, His, Avitag is expressed from human 293 cells (HEK293). It contains AA Pro 20 - Lys 292 (Accession # F7F486-1). This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag).
Species	Monkey
Source	HEK293
ProteinLength	20-292 aa
Conjugation/Label	Biotin
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

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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 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.

Form	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.
Specificity	Protein Ratio: Passed as determined by the HABA assay/binding ELISA.
Bio-activity	Immobilized Biotinylated Cynomolgus/Rhesus macaque CD19 (20-292) Protein, His, Avitag at 1 µg/mL (100 µL/well) on streptavidin precoated (0.5 µg/well) plate can bind Human Anti-CD19, Human IgG1 with a linear range of 0.02-2.5 µg/mL.
Molecular Mass	The protein has a calculated MW of 33.9 kDa. The protein migrates as 48-65 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.
Purity	>90% as determined by SDS-PAGE.
Storage	This product is stable after storage at: -20 to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution. For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 µg/µL. Centrifuge the vial at 4 centigrade before opening to recover the entire

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contents.

GENE INFORMATION

Gene Name	CD19 CD19 molecule [Macaca mulatta]
Official Symbol	CD19
Synonyms	CD19; CD19 molecule; B-lymphocyte antigen CD19;
Gene ID	705211
mRNA Refseq	XM_001103043
Protein Refseq	XP_001103043
UniProt ID	F7F486

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