

Biotin Human CD19 Protein (C-Fc-Avi)

Catalog Number:	807203, 807204
Size:	25 ug, 100 ug
Target Name:	CD19, B4, CVID3
Regulatory Status:	RUO

PRODUCT DETAILS

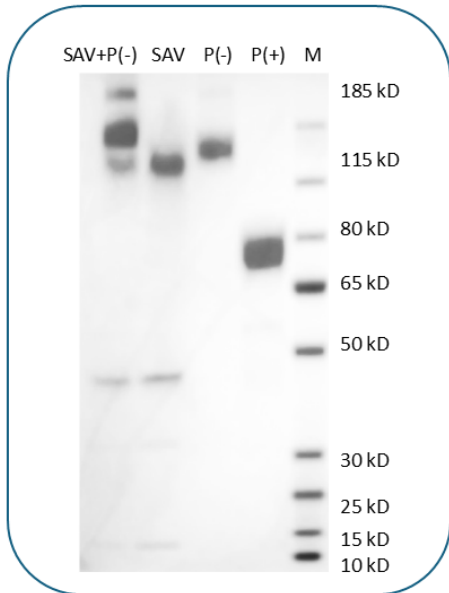
Application:	ELISA, BLI
Format:	Liquid, Biotinylated
Expression Host:	CHO
Species:	Human
Sources:	Recombinant Human CD19 Protein (Glu21-Lys291) with C-terminus Fc-Avi-tag is expressed in CHO cell. This protein was site-specifically labeled with Biotin by BirA ligase.
Accession Number:	P15391
Molecular Weight:	The protein has a predicted molecular weight of 58.4 kDa. Under DTT-reducing conditions, it migrates at approximately 70-80 kDa on SDS-PAGE.
Affinity Tag:	C-Fc-Avi
Purity:	>95% based on SDS-PAGE under reducing condition
Formulation:	1xPBS buffer, pH7.4, 0.22 µm filtered
Endotoxin level:	Not tested
Protein Concentration:	25µg size is bottled at 0.2mg/mL concentration. 100 µg size is supplied at a lot-specific concentration.
Storage and Handling:	Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 µm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at ≤ -70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.

BACKGROUND INFORMATION

Cluster of Differentiation 19 (CD19) is a 95 kDa type I transmembrane glycoprotein and a member of the immunoglobulin superfamily, expressed on B cells from the early pro-B stage through to activated B blasts, but absent on plasma cells. It is also present on follicular dendritic cells. CD19 functions as a crucial co-receptor in B cell signaling by forming a complex with CD21 (CR2) and CD81 (TAPA-1), which enhances the sensitivity of B cells to antigens by lowering the activation threshold. Upon antigen binding, CD19 is phosphorylated, recruits Src-family kinases and PI3K, and internalizes with surface immunoglobulin (sIg), promoting downstream signal transduction necessary for B cell development, activation, and differentiation. Mutations in CD19 are

linked to immunodeficiency syndromes with impaired antibody production, and CD19 is a key target in immunotherapy, particularly CAR-T cell treatment of B-cell malignancies.

PRODUCT DATA



Human CD19 Protein (C-Fc-Avi) was biotinylated in vitro using BirA ligase. SDS-PAGE analysis under reducing (P+) and non-reducing (P-) conditions shows the protein has a purity greater than 95%. A gel shift assay using co-incubation with streptavidin indicates that the biotinylation efficiency of the CD19 protein exceeds 90%.

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