

Recombinant Human CD19 Protein, Fc-tagged, Biotinylated

Cat. No. CD19-127H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Biotinylated Recombinant human CD19 protein with Fc tag was expressed in HEK293..
Species	Human
Source	HEK293
ProteinLength	556
Description	<p>This gene encodes a member of the immunoglobulin gene superfamily. Expression of this cell surface protein is restricted to B cell lymphocytes. This protein is a reliable marker for pre-B cells but its expression diminishes during terminal B cell differentiation in antibody secreting plasma cells. The protein has two N-terminal extracellular Ig-like domains separated by a non-Ig-like domain, a hydrophobic transmembrane domain, and a large C-terminal cytoplasmic domain. This protein forms a complex with several membrane proteins including complement receptor type 2 (CD21) and tetraspanin (CD81) and this complex reduces the threshold for antigen-initiated B cell activation. Activation of this B-cell antigen receptor complex activates the phosphatidylinositol 3-kinase signalling pathway and the subsequent release of intracellular stores of calcium ions. This protein is a target of chimeric antigen receptor (CAR) T-cells used in the treatment of lymphoblastic leukemia. Mutations in this gene are associated with the disease common variable immunodeficiency 3 (CVID3) which results in a failure of B-cell differentiation and impaired secretion of immunoglobulins. CVID3 is characterized by hypogammaglobulinemia, an inability to</p>

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mount an antibody response to antigen, and recurrent bacterial infections. Alternative splicing results in multiple transcript variants encoding distinct isoforms.

Form Lyophilized

Molecular Mass 56.3 kDa

AA Sequence

MPPPRLLFFLLFLTPMEVRPEEPLVVKVEEGDNAVLQCLKGTS DGPTQQLTWSRES
 PLKPFLKLSLGLPGLGIHMRPLAIWLFIFNVSQQMGGFYLCQPGPPSEKAWQPGWT
 VNVEGSGELFRWNVSDLGGLGCGLKNRSSEGPSSPSGKLMSPKLYVWAKDRPEIW
 EGEPCLPPRDSL NQSL SQDLTMAPGSTLWLSCGVPPDSVSRGPLSWTHVHPKGP
 KSLLSLELKDDRPARDMWV METG LLLPRATAQDAGKYYCHRG NLTMSFHLEITARP
 VLWHWLLRTGGWKVSAVTLAYLIFCLCSLVGILHLQRALVLRKRKRMTDPTRRFFK
 VTPPPGSGPQNQYGNVLSLPTPTSGLGRAQRWAAGLGGTAPSYGNPSSDVQADG
 ALGSRSPPGVGPEEEEEGEGYE EPDSEEDSEFYENDSNLGQDQLSQDGS GYENPE
 DEPLGPEDEDSFSNAESYENEDEELTQP VARTMDFLSPHGS AWDP SREATSLGSQ
 SYEDMRGILYAAPQLRSIRGQPGPNHEEDADSYENMDNPDGPDPAWGGGGRMGT
 WSTR

Purity > 98%

Applications WB; ELISA; FACS; FC

Stability This bioreagent is stable at 4 centigrade (short-term) and -70 centigrade(long-term). After reconstitution, sample may be stored at 4 centigrade for 2-7 days and below -18 centigrade for future use.

Storage At -20 centigrade.

Concentration 1 mg/mL

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Storage Buffer	PBS (pH 7.4-7.5). Sterile-filtered colorless solution.
Reconstitution	Reconstitute in sterile distilled H ₂ O to no less than 100 µg/mL; dilute reconstituted stock further in other aqueous solutions if needed. Please review COA for lot-specific instructions. Final measurements should be determined by the end-user for optimal performance.
Conjugation	Biotin

GENE INFORMATION

Gene Name	CD19 CD19 molecule [Homo sapiens (human)]
Official Symbol	CD19
Synonyms	CD19; CD19 molecule; CD19 antigen; B-lymphocyte antigen CD19; differentiation antigen CD19; T-cell surface antigen Leu-12; B-lymphocyte surface antigen B4; B4; CVID3; MGC12802;
Gene ID	930
mRNA Refseq	NM_001178098
Protein Refseq	NP_001171569
MIM	107265
UniProt ID	P15391

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