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	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

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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	MPPPRLLFFLLFLTPMEVRPEEPLVVKVEEGDNAVLQCLKGTSDGPTQQLTWSRES PLKPFLKLSLGLPGLGIHMRPLAIWLFIFNVSQQMGGFYLCQPGPPSEKAWQPGWT VNVEGSGELFRWNVSDLGGLGCGLKNRSSEGPSSPSGKLMSPKLYVWAKDRPEIW EGEPPCLPPRDSLNQSLSQDLTMAPGSTLWLSCGVPPDSVSRGPLSWTHVHPKGP KSLLSLELKDDRPARDMWVMETGLLLPRATAQDAGKYYCHRGNLTMSFHLEITARP VLWHWLLRTGGWKVSAVTLAYLIFCLCSLVGILHLQRALVLRRKRKRMTDPTRRFFK VTPPPGSGPQNQYGNVLSLPTPTSGLGRAQRWAAGLGGTAPSYGNPSSDVQADG ALGSRSPPGVGPEEEEGEGYEEPDSEEDSEFYENDSNLGQDQLSQDGSGYENPE DEPLGPEDEDSFSNAESYENEDEELTQPVARTMDFLSPHGSAWDPSREATSLGSQ 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 H2O 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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