

Recombinant Rhesus macaque CD19 Protein, Fc-tagged

Cat. No. CD19-131R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rhesus macaque CD19 protein with Fc tag was expressed in HEK293.
Species	Rhesus macaque
Source	HEK293
ProteinLength	557
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 mount an antibody response to antigen, and recurrent bacterial infections. Alternative

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	splicing results in multiple transcript variants encoding distinct isoforms.
Form	Lyophilized
Molecular Mass	56.7 kDa
AA Sequence	MPPPCLLFFLLFLTPMEVRPQEPLVVKVEEGDNAVLQCLEGTSDGPTQQVLVWCRDS PFEPFLNLSLGLPGMGIRMGPLGIWLLIFNVSNQTGGFYLCQPGLPSEKAWQPGWT VSVEGSGELFRWNVSDLGGLGCGLKNRSSEGPSSPSGKLNSSQLYVWAKDRPEM WEGEPVCGPPRDSL NQSL SQDLTMAPGSTLWLSCGVPPDSVSRGPLSWTHVRPK GPKSSLLSLELKDDRPDRDMWVVDTG LLLTRATAQDAGKYYCHRGNWTKSFYLEIT ARPALWHWLLRIGGWKVPVAVTLTYLIFCLCSLVGILQLQRALVLRKRKRMTDPTRR FFKVTPPPGSGPQNQYGNVLSLPTPTSGLGRAQRWAAGLGGTAPSYGNPSSDVQV DGAVGSRSPPGAGPEEEEEGEGYEEDSEEGSEFYENDSNFGQDQLSQDGSGYEN PEDEPLGPEDEDSFSNAESYENEDEELTQPVARTMDFLSPHGS AWDP SREATSLG SQSYEDMRGLLYAAPQLRTIRGQPGPNHEEDADSYENMDNPDGPDP AWGGGGRM GTWSAR
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

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.

GENE INFORMATION

Gene Name CD19 CD19 molecule [*Macaca mulatta* (Rhesus monkey)]

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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