

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	MPPPCLLFFLLFLTPMEVRPQEPLVVKVEEGDNAVLQCLEGTSDGPTQQLVWCRDS 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 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.

GENE INFORMATION

Gene Name	CD19 CD19 molecule [<i>Macaca mulatta</i> (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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