

## Recombinant Rhesus macaque CD19 Protein, Fc-tagged

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

### SPECIFICATION

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

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splicing results in multiple transcript variants encoding distinct isoforms.

**Form** Lyophilized

**Molecular Mass** 56.7 kDa

**AA Sequence**

MPPPCLLFFLLFLTPMEVRPQEPLVVKVEEGDNAVLQCLEGTSDGPTQQLVWCRDS  
 PFEPFLNLSLGLPGMGIRMGPLGIWLLIFNVSNTGGFYLCQPGLPSEKAWQPGWT  
 VSVEGSGELFRWNVSDLGGLGCGLNRSSEGPSSPSGKLNSSQLYVWAKDRPEM  
 WEGEPVCGPPRDSL NQSLSQDLTMAPGSTLWLSCGVPPDSVSRGPLSWTHVRPK  
 GPKSSLLSLELKDDRPDRDMWVVDTG LLLTRATAQDAGKYYCHRGNWTKSFYLEIT  
 ARPALWHWLLRIGGWKVPVAVTLTYLIFCLCSLVGILQLQRALVLRKRKRMTDPTRR  
 FFKVTPPPGSGPQNQYGNVLSLPTPTSGLGRAQRWAAGLGGTAPSYGNPSSDVQV  
 DGAVGSRSPPGAGPEEEEEGEGYEEDSEEGSEFYENDSNFGDQLSQDGSYEN  
 PEDEPLGPEDEDSFSNAESYENEDELTQPVARTMDFLSPHGSAWDPSREATSLG  
 SQSYEDMRGLLYAAPQLRTIRGQPGPNHEEDADSYENMDNPDGPDPAWGGGGRM  
 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

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**Storage Buffer**                      PBS (pH 7.4-7.5). Sterile-filtered colorless solution.

**Reconstitution**                      Reconstitute in sterile distilled H<sub>2</sub>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 [ *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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