

RP01307

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# Recombinant Human CD19 Protein

Catalog No.: RP01307

Recombinant

## Sequence Information

Species	Gene ID	Swiss Prot
Human	930	P15391-1

### Tags

C-His

### Synonyms

B4;CVID3;CD19

## Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

### Endotoxin

Please contact us for more information.

### Formulation

Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Background

B-lymphocyte antigen CD19 is also known as CD19 (Cluster of Differentiation 19), is a single-pass type I membrane protein which contains two Ig-like C2-type (immunoglobulin-like) domains. CD19 is expressed on follicular dendritic cells and B cells. In fact, it is present on B cells from earliest recognizable B-lineage cells during development to B-cell blasts but is lost on maturation to plasma cells. It primarily acts as a B cell co-receptor in conjunction with CD21 and CD81. Upon activation, the cytoplasmic tail of CD19 becomes phosphorylated, which leads to binding by Src-family kinases and recruitment of PI-3 kinase. As on T cells, several surface molecules form the antigen receptor and form a complex on B lymphocytes. The (almost) B cell-specific CD19 phosphoglycoprotein is one of these molecules. The others are CD21 and CD81. These surface immunoglobulin (slg)-associated molecules facilitate signal transduction. On living B cells, anti-immunoglobulin antibody mimicking exogenous antigen causes CD19 to bind to slg and internalize with it. The reverse process has not been demonstrated, suggesting that formation of this receptor complex is antigen-induced. This molecular association has been confirmed by chemical studies.

Mutations in CD19 are associated with severe immunodeficiency syndromes characterized by diminished antibody production. CD19 has been shown to interact with: CD81, CD82, Complement receptor 2, and VAV2.

## Basic Information

### Description

Recombinant Human CD19 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Pro20-Lys291) of human CD19 (Accession #NP\_001761.3) fused with an 6xHis tag at the C-terminus.

### Bio-Activity

Measured by its binding ability in a functional ELISA. Immobilized Human CD19 at 2 µg/mL (100 µL/well) can bind CD19 Rabbit pAb with a linear range of 0.12-3.53ng/mL.

### Storage

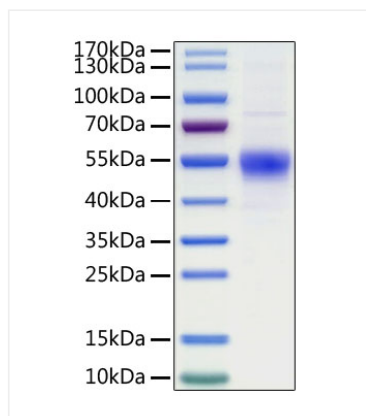
Store the lyophilized protein at -20°C to -80°C for long term. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

## Contact

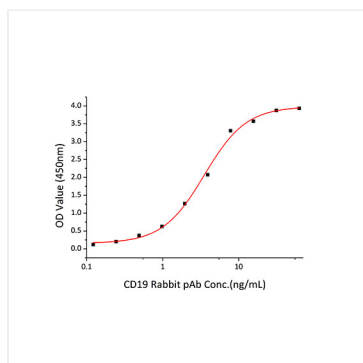


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## Validation Data



Recombinant Human CD19 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 55 kDa.



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