

## CD19 Protein, Cynomolgus/Rhesus macaque, Recombinant (His)

### General Information

Synonyms:	CVID3;CD19;MGC12802;B4;Leu-12
Protein Construction:	Gln21-Trp291
Species:	Cynomolgus,Rhesus
Expression Host:	HEK293 Cells
Accession:	A0A2K5W8L9(Cynomolgus) / F7F486(Rhesus macaque)
Molecular Weight:	30.96 kDa (predicted). Due to glycosylation, the protein migrates to 50-70 kDa based on Tris-Bis PAGE result.

### QC Testing

Biological Activity:	Anti-CD19 Antibody, hFc Tag captured on CM5 Chip via Protein A can bind Cynomolgus/Rhesus macaque CD19, His Tag with an affinity constant of 0.46 $\mu\text{M}$ as determined in SPR assay (Biacore T200).
Purity:	> 95% as determined by Bis-Tris PAGE
Endotoxin:	< 1.0 EU/ $\mu\text{g}$ of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 $\mu\text{m}$ filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100  $\mu\text{g}/\text{ml}$ . Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

It is recommended to store recombinant proteins at  $-20^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$  for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at  $-80^{\circ}\text{C}$ . For reconstituted protein solutions, the solution can be stored at  $-20^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$  for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

CD19 is a 95 kDa transmembrane glycoprotein that plays a central role in B cell activation and humoral immune responses. Functions as coreceptor for the B-cell antigen receptor complex (BCR) on B-lymphocytes. Decreases the threshold for activation of downstream signaling pathways and for triggering B-cell responses to antigens. Activates signaling pathways that lead to the activation of phosphatidylinositol 3-kinase and the mobilization of

intracellular Ca<sup>2</sup> stores.

Reference

Maude S L, et al. CD19-targeted chimeric antigen receptor T-cell therapy for acute lymphoblastic leukemia[J]. Blood, 2015, 125(26):4017-23.

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