**Product Name: Cynomolgus/Rhesus macaque CD19 Protein Dimer, His Tag**

**Product Code: CSP-25291-01**

**FOR RESEARCH USE ONLY (RUO)**

**Protein Name:** CD19

**Alternate Name(s):** B-Lymphocyte Surface Antigen B4, B4, CVID3, CD19 molecule, B-lymphocyte antigen CD19, T-Cell Surface Antigen Leu-12

**Expression Host**
HEK293T

**Amino Acid Range**
P20-K292

**Protein Construct**
CD19 protein dimer contains a CD19 extracellular domain (UniProt# F7F486) fused with a proprietary dimer motif followed by a His tag at the C-terminus. Expressed in HEK293T cell line.

**SDS-Page Molecular Weight**
76 kDa. The migration range of the heterodimer protein with glycosylation under non-reducing conditions is between 120 and 190 kDa on SDS PAGE.

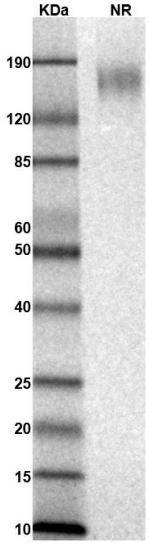
**Purity**
Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition

**Formulation**
0.22µm filtered PBS, pH 7.4

**Stability & Storage**
-80$^0$C

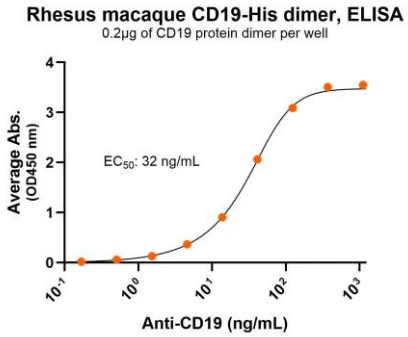
**Shipping Conditions**
Frozen Dry Ice

## SDS-PAGE




MW: Molecular Weight marker reduced condition
NR: CD19 dimer under non-reduced condition
The migration range of the heterodimer protein with glycosylation under non-reducing conditions is between 120 and 190 kDa on SDS PAGE.

## Antibody Binding




Immobilized Cynomolgus/Rhesus macaque CD19 protein dimer, His Tag (CSP-25291-01) at 2 µg/mL (100 µL/well) can bind anti-human CD19 monoclonal antibody with half maximal effective concentration (EC50) range of 16-63.8 ng/mL (QC tested).

**Background**

Cluster of Differentiation 19 (CD19) is a Type I transmembrane glycoprotein in the immunoglobulin superfamily. CD19 is also known as B-Lymphocyte Surface Antigen B4, CVID3, B-lymphocyte antigen CD19, and T-Cell Surface Antigen Leu-12. CD19 is expressed on B cells throughout B cell development, but lost in plasma cells, and is also expressed on follicular dendritic cells. CD19 contains two extracellular C2-set Immunoglobulin-like (Ig-like) domains and a cytoplasmic tail that is highly conserved among mammalian species. CD19 can form multimolecular complexes with CD21 and CD81, but forming these complexes is not required for CD19 signal transduction. Mutations on CD19 are associated with severe immunodeficiency syndromes. CD19 is highly expressed on B cell cancers such as B cell lymphomas, acute lymphoblastic leukemia, and chronic lymphocytic leukemia. While structurally and functionally similar to human CD19 homodimer, Cynomolgus/Rhesus macaque CD19 homodimer is a species-specific tool essential for preclinical studies, basic research, and translational research.