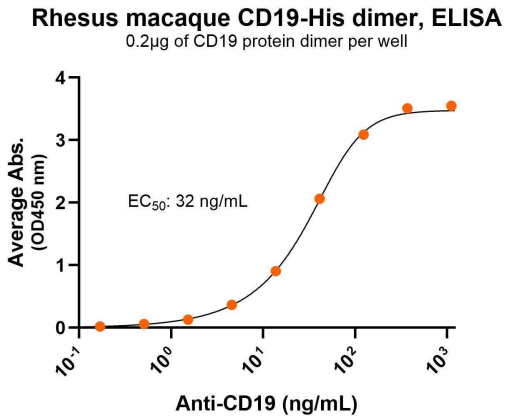
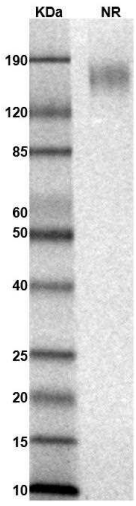
Bioactivity – Antibody Binding



Immobilized 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).

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.

Rhesus macaque CD19 Protein Dimer, His Tag
Product Code: CSP-25291-01
For Research Use Only (RUO)

Expression Host
HEK293T

Protein Name
CD19

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

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

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.

Amino Acid Range
P20-K292

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.

Formulation
0.22μm filtered PBS, pH 7.4

Shipping Conditions
Frozen Dry Ice

Stability & Storage
-80^{0}C

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, Rhesus macaque CD19 homodimer is a species-specific tool essential for preclinical studies, basic research, and translational research.