

Bioactive, Recombinant Human CD19 Protein Dimer, His Tag Product Code: CSP-24125-01 For Research Use Only (RDU)

# **Bioactivity – Antibody Binding**



Immobilized human CD19-His dimer protein (CSP-24125-01) at 2  $\mu$ g/mL (100  $\mu$ L/well) can bind anti-human CD19 monoclonal antibody with half maximal effective concentration (EC50) range of 0.005-0.02 ng/mL (QC tested).



MW: Molecular Weight marker reduced condition NR: CD19 dimer under non-reduced condition

The migration range of the dimer protein with glycosylation under non-reducing condition is 120-190 kDa on SDS-PAGE.



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#### Expression Host HEK293T

Protein Construct

Purity

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

#### Amino Acid Range P20-K291

CD19 protein dimer contains a CD19 extracellular domain (UniProt# P15391) fused with a 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 dimer protein with glycosylation under non-reducing condition is 120-190 kDa on SDS-PAGE.

### **Shipping Conditions**

Frozen Dry Ice

## Formulation

0.22µm filtered PBS, pH 7.4

Stability & Storage -80°C

# Background

Human 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. CD19 has become an attractive therapeutic target for leukemia immunotherapies.