Cynomolgus / Rhesus macaque CD19 (20-292) Protein, Fc Tag (MALS & SPR verified)

Catalog # CD9-C5354

Synonym

CD19,B4,CVID3,MGC12802

Source

Cynomolgus / Rhesus macaque CD19 (20-292) Protein, Fc Tag (CD9-C5354) is expressed from CHO cells. It contains AA Pro 20 - Lys 292 (Accession # F7F486-1). In the region Pro 20 - Lys 292, the AA sequence of Cynomolgus and Rhesus macaque CD19 are homologus.
Predicted N-terminus: Pro 20

Molecular Characterization

CD19(Pro 20 - Lys 292) F7F486-1	Fc(Pro 100 - Lys 330) P01857

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 56.5 kDa. The protein migrates as 80-95 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

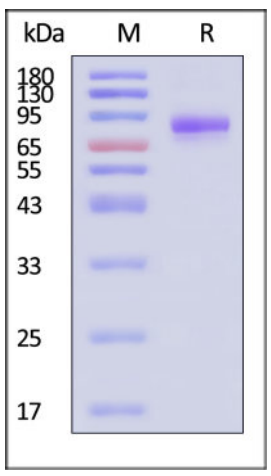
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

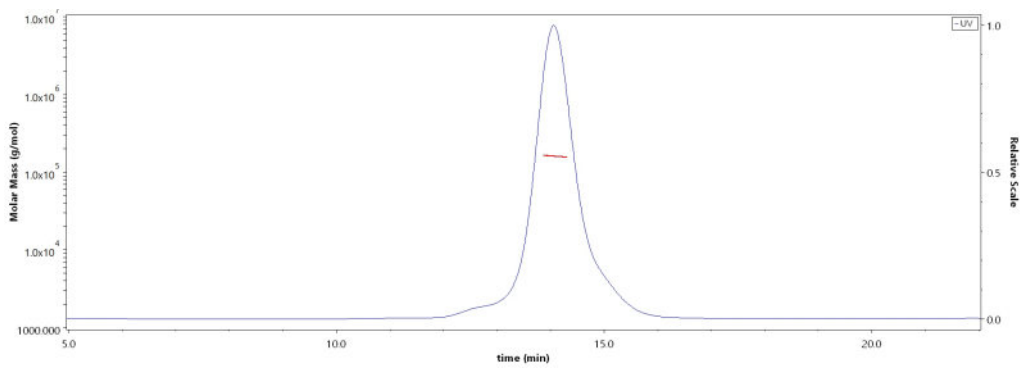
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



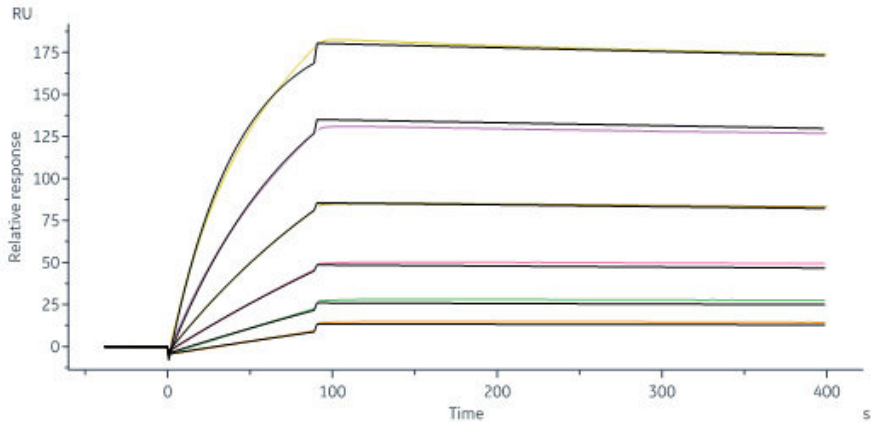
Cynomolgus / Rhesus macaque CD19 (20-292) Protein, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS



The purity of Cynomolgus / Rhesus macaque CD19 (20-292) Protein, Fc Tag (Cat. No. CD9-C5354) is more than 85% and the molecular weight of this protein is around 145-180 kDa verified by SEC-MALS.
Report

Bioactivity-SPR



Cynomolgus / Rhesus macaque CD19 (20-292) Protein, Fc Tag (Cat. No. CD9-C5354) immobilized on CM5 Chip can bind Anti-CD19 Antibody with an affinity constant of 2.70 nM as determined in a SPR assay (Biacore 8K) (QC tested).

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 (sIg)-associated molecules facilitate signal transduction. On living B cells, anti-immunoglobulin antibody mimicking exogenous antigen causes CD19 to bind to sIg 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.

Clinical and Translational Updates