

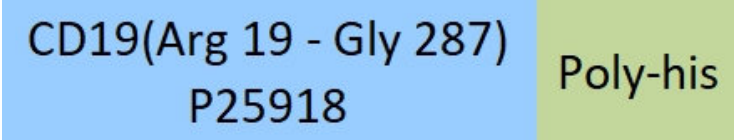
Synonym

CD19,B4,CVID3,MGC12802

Source

Alexa Fluor 488-Labeled Mouse CD19 Protein, His Tag (CD9-MA2H8) is expressed from human 293 cells (HEK293). It contains AA Arg 19 - Gly 287 (Accession # [P25918](#)). It is the Alexa Fluor 488 labeled form of Mouse CD19 Protein, His Tag.

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 31.6 kDa. The protein migrates as 40-60 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Conjugate

AF488

Excitation Wavelength: 488 nm

Emission Wavelength: 517 nm

Labeling

*The primary amines in the side chains of lysine residues and the N-terminus of the protein are conjugated with AF488 using standard chemical labeling method. The residual AF488 is removed by molecular sieve treatment during purification process.*

Protein Ratio

The AF488 to protein molar ratio is 2.5-3.5.

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

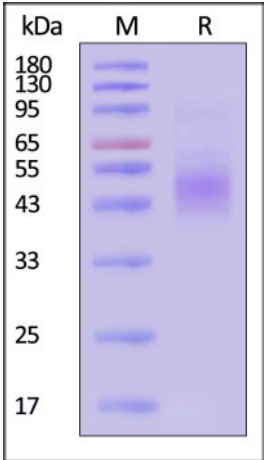
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please protect from light and 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



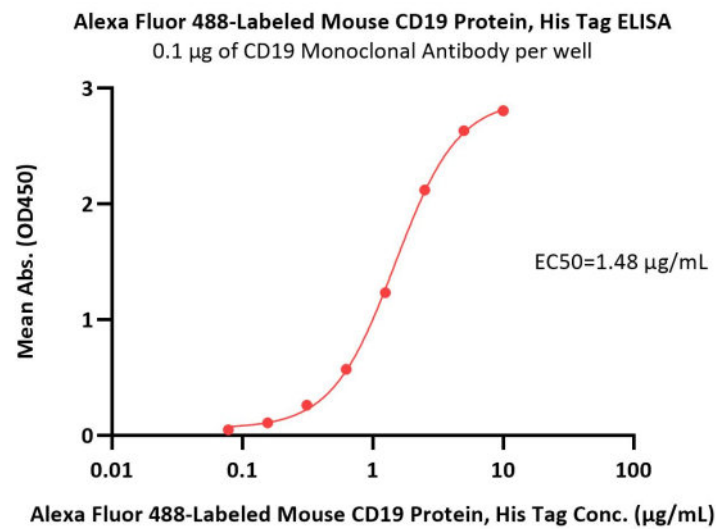
Alexa Fluor 488-Labeled Mouse CD19 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity

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of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-ELISA



Immobilized CD19 Monoclonal Antibody at 1 µg/mL (100 µL/well) can bind Alexa Fluor 488-Labeled Mouse CD19 Protein, His Tag (Cat. No. CD9-MA2H8) with a linear range of 0.078-2.5 µg/mL (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.

