

Active Recombinant Human CD19 Protein, Fc-tagged, FITC conjugated

Cat. No. CD19-3308HF **Lot. No.** (See product label)

SPECIFICATION

Product Overview FITC conjugated recombinant human CD19 Protein, With C-Fc Tag (rh CD19 Fc Chimera) Pro 20 - Lys 291 (Accession # AAH06338) was produced in human 293 cells (HEK293).

Species Human

Source HEK293

ProteinLength 20-291 a.a.

Description 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

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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.

Form

Lyophilized

Bio-activity

Measured by its binding ability in a functional ELISA. Immobilized rhCD9 at 2 µg/mL (100 µL/well) can bind human CD19 Fc Chimera with a linear ranger of 50-500 ng/mL, when detected by HRP*-Goat anti Human IgG, Fcy Fragment.

Molecular Mass

rh CD19 Fc Chimera is fused with a human IgG1 Fc tag at the C-terminus, and has a calculated MW of 56.3 kDa. DTT-reduced Protein migrates as 56-66 kDa in SDS-PAGE due to glycosylation.

N-terminal Sequence Analysis

Pro 20

Endotoxin

< 1.0 EU/ µg of the rh CD19 Fc Chimera by the LAL method.

Purity

> 95 % as determined by SDS-PAGE

Characteristic

Disulfide-linked homodimer
 Labeled with FITC via amines
 Excitation source: 488 nm spectral line, argon-ion laser
 Excitation Wavelength: 488 nm
 Emission Wavelength: 535 nm

Storage

Avoid repeated freeze-thaw cycles. No activity loss was observed after storage at: In lyophilized state for 1 year (4 centigrade); After reconstitution under sterile conditions

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for 3 months (-70 centigrade).

Storage Buffer

Lyophilized from 0.22 µm filtered solution in 50 mM tris, 100 mM glycine, pH7.5. Normally Mannitol or Trehalose are added as protectants before lyophilization.

Conjugation

FITC

GENE INFORMATION

Gene Name

CD19 CD19 molecule [Homo sapiens]

Official Symbol

CD19

Synonyms

CD19; CD19 molecule; CD19 antigen; B-lymphocyte antigen CD19; differentiation antigen CD19; T-cell surface antigen Leu-12; B-lymphocyte surface antigen B4; B4; CVID3; MGC12802;

Gene ID

930

mRNA Refseq

NM_001178098

Protein Refseq

NP_001171569

MIM

107265

UniProt ID

P15391

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