

# Active Recombinant Human CD19 Protein, Fc-tagged, Alexa Fluor 647 conjugated

Cat. No. CD19-3308HAF647 Lot. No. (See product label)

## SPECIFICATION

**Product Overview** Alexa Fluor 647 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 rangel 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 Alexa Fluor 647 via amines  
 Excitation = 650 nm  
 Emission = 668 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 for 3 months (-70 centigrade).

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**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** Alexa Fluor 647

## 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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