

## PRODUCT INFORMATION

<b>Target</b>	CD19
<b>Synonyms</b>	B4; CVID3
<b>Description</b>	Recombinant human CD19(M75V,R76S,F85S) Protein with C-terminal human Fc tag
<b>Delivery</b>	In Stock
<b>Uniprot ID</b>	P15391
<b>Expression Host</b>	HEK293
<b>Tag</b>	C-Human Fc tag
<b>Molecular Characterization</b>	CD19(M75V,R76S,F85S)(Pro20-Lys291) hFc(Glu99-Ala330)
<b>Molecular Weight</b>	The protein has a predicted molecular mass of 56.1 kDa after removal of the signal peptide. The apparent molecular mass of CD19(M75V,R76S,F85S)-hFc is approximately 55-100 kDa due to glycosylation.
<b>Purity</b>	The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.
<b>Formulation &amp; Reconstitution</b>	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8% trehalose is added as protectants before lyophilization. Please see Certificate of Analysis for specific instructions of reconstitution.
<b>Storage &amp; Shipping</b>	Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.
<b>Background</b>	This gene encodes a member of the immunoglobulin gene superfamily. Expression of this cell surface protein is restricted to B cell lymphocytes. This protein is a reliable marker for pre-B cells but its expression diminishes during terminal B cell differentiation in antibody secreting plasma cells. The protein has two N-terminal extracellular Ig-like domains separated by a non-Ig-like domain, a hydrophobic transmembrane domain, and a large C-terminal cytoplasmic domain. This protein forms a complex with several membrane proteins including complement receptor type 2 (CD21) and tetraspanin (CD81) and this complex reduces the threshold for antigen-initiated B cell activation. Activation of this B-cell antigen receptor complex activates the phosphatidylinositol 3-kinase signalling pathway and the subsequent release of intracellular stores of calcium ions. This protein is a target of chimeric antigen receptor (CAR) T-cells used in the treatment of lymphoblastic leukemia. Mutations in this gene are associated with the disease common variable immunodeficiency 3 (CVID3) which results in a failure of B-cell differentiation and impaired secretion of immunoglobulins. CVID3 is characterized by hypogammaglobulinemia, an inability to mount an antibody response to antigen, and recurrent bacterial infections. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2020]
<b>Usage</b>	Research use only



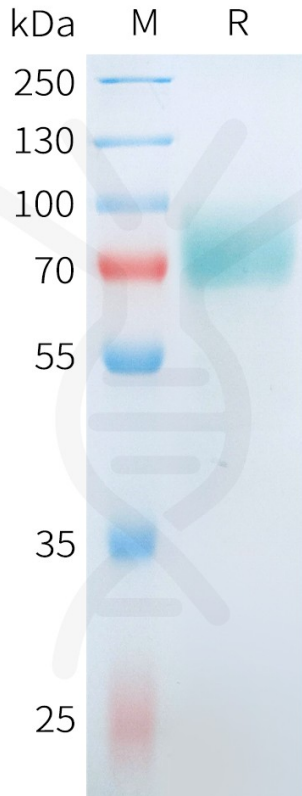


Figure 1. Human CD19(M75V,R76S,F85S) Protein, hFc Tag on SDS-PAGE under reducing condition.

### Human CD19 (M75V,R76S,F85S), hFc Tagged protein ELISA

0.2  $\mu$ g of Human CD19(M75V,R76S,F85S), hFc tagged protein per well

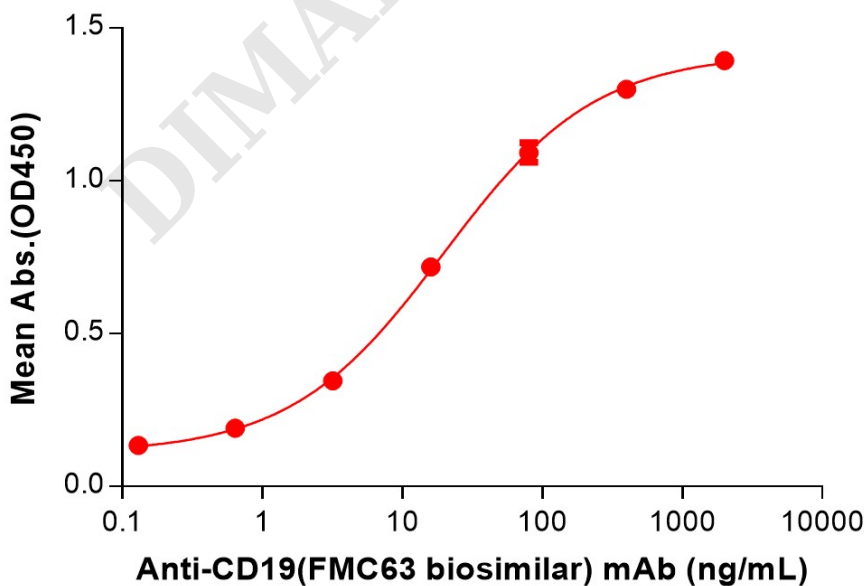


Figure 2. ELISA plate pre-coated by 2  $\mu$ g/mL (100  $\mu$ L/well) Human CD19 (M75V,R76S,F85S) Protein, hFc Tag (PME101558)

can bind Anti-CD19(FMC63 biosimilar) mAb (BME100094) in a linear range of 3.20-400 ng/mL.

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