PRODUCT INFORMATION

Target	CD19
Synonyms	B4; CVID3
Description	Recombinant human CD19(M75I,L82V,F83L) Protein with C-terminal human Fc tag
Delivery	In Stock
Uniprot ID	P15391
Expression Host	HEK293
Tag	C-Human Fc tag
Molecular Characterization	CD19(M75I,L82V,F83L)(Pro20-Lys291) hFc(Glu99-Ala330)
Molecular Weight	The protein has a predicted molecular mass of 56.2 kDa after removal of the signal peptide. The apparent molecular mass of CD19(M75I,L82V,F83L)-hFc is approximately 55-100 kDa due to glycosylation.
Purity	The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.
Formulation & Reconstitution	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.
Storage&Shipping	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.
Background	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]
Usage	Research use only
Conjugate	Unconjugated

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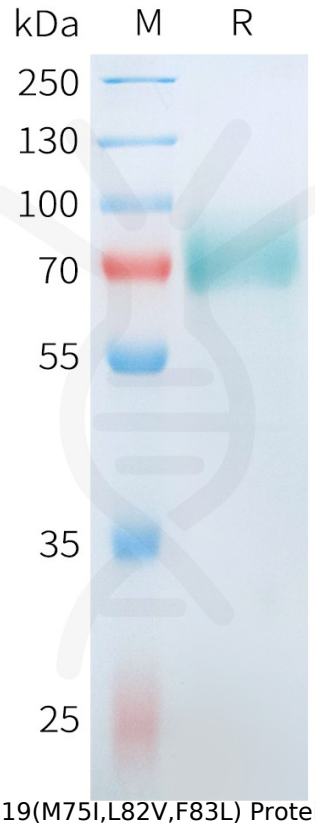


Figure 1. Human CD19(M75I,L82V,F83L) Protein, hFc Tag on SDS-PAGE under reducing condition.

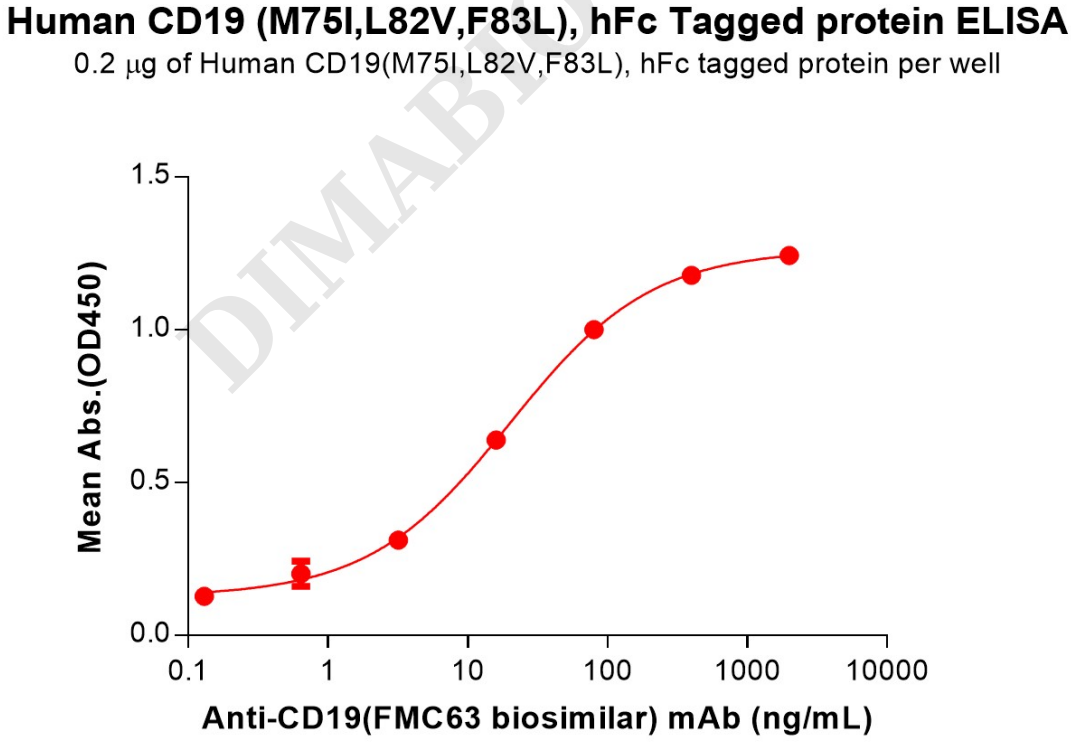


Figure 2. ELISA plate pre-coated by 2 μg/mL (100 μL/well) Human CD19 (M75I,L82V,F83L) Protein, hFc Tag (PME101557) can bind Anti-CD19(FMC63 biosimilar) mAb (BME100094) in a linear range of 3.20–400 ng/mL.

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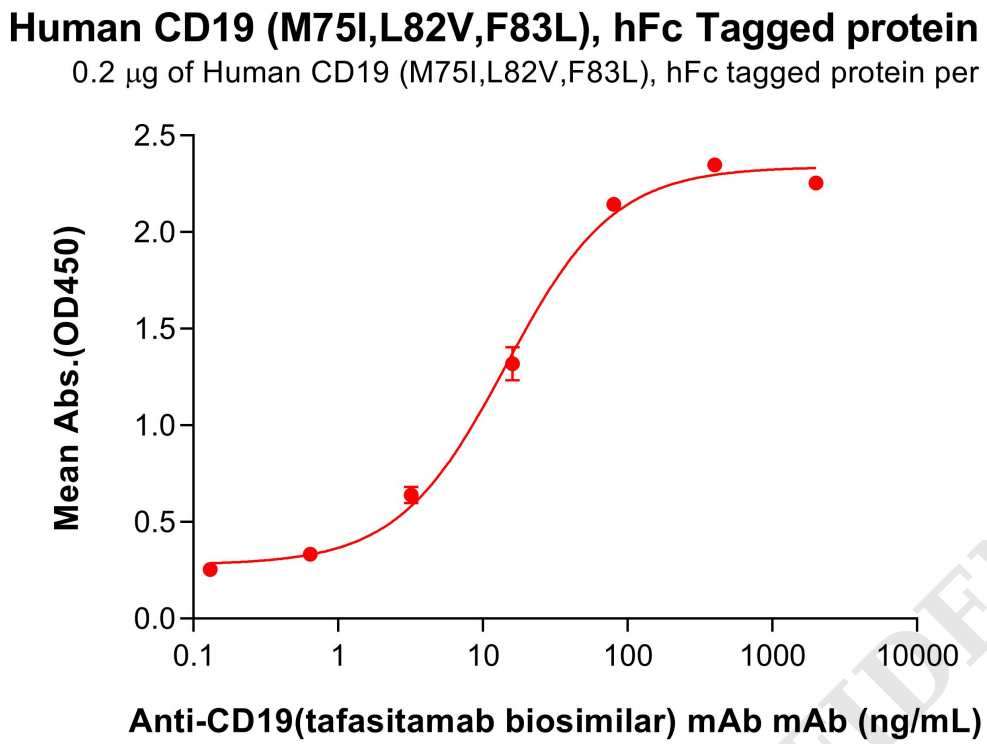


Figure 3. ELISA plate pre-coated by 2 μg/mL (100 μL/well) Human CD19 (M75I,L82V,F83L) Protein, hFc Tag (PME101557) can bind Anti-CD19(tafasitamab biosimilar) mAb (BME100683) in a linear range of 3.2–16 ng/mL.

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