Datasheet for ABIN7597236

CD19 Protein (AA 20-291, Leu82Val-Mutant, Met75Ile-Mutant, Phe83Leu-Mutant) (Fc Tag)

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Overview

Quantity:	10 µg
Target:	CD19
Protein Characteristics:	AA 20-291, Leu82Val-Mutant, Met75Ile-Mutant, Phe83Leu-Mutant
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CD19 protein is labelled with Fc Tag.

Product Details

Purpose:	Recombinant human CD19(M75I,L82V,F83L) Protein with C-terminal human Fc tag
Sequence:	CD19(M75I,L82V,F83L)(Pro20-Lys291) hFc(Glu99-Ala330)
Purity:	The purity of the protein is greater than 95 % as determined by SDS-PAGE and Coomassie blue staining.

Target Details

Target:	CD19
Alternative Name:	CD19 (CD19 Products)
Background:	B4, CVID3 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

Target Details

	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]
Molecular Weight:	predicted molecular mass of 56.2 kDa after removal of the signal peptide. The apparent molecular mass of CD19(M75I,L82V,F83L)-hFc is 55-100 kDa due to glycosylation.
UniProt:	P15391
Pathways:	Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway

Application Details

Application Notes:	Extracellular Domain Proteins (ECD) can be used as: • Immunogens for antibody drug development • Reagents used for CAR-T positive cell monitoring • Reagents for antibody screening and functional testing • Reagents for antibody affinity measurement
Comment:	The protein was made using HEK293 mammalian cell secretion expression system to ensure the close-to-native structures and post-translational modifications of the target protein.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Buffer:	Lyophilized from sterile PBS, pH 7.4. Normally 5 % – 8% trehalose is added as protectants before lyophilization.

Handling

Storage:	-20 °C,-80 °C
Storage Comment:	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.
Expiry Date:	12 months