

Product Information

MemDX™ Membrane Protein Human CD19 (CD19 molecule, 20-291aa) for Antibody

Discovery

Cat. No.: **MP1476J**

This product is for research use only and is not intended for diagnostic use.

This product is a 57.3 kDa Human CD19 membrane protein expressed in Mammalian cell. The protein is for research use only and is not approved for use in humans or in clinical diagnosis.

Product Specifications

Host Species

Human

Target Protein

CD19

Protein Length

Partial (20-291aa)

Protein Class

Immune Checkpoints

Molecular Weight

57.3 kDa

TMD

1

Sequence

PEEPLVVVKVEEGDNAVLQCLKGTSDGPTQQLTWSRESPLKPFLKLSLGLPGLGIHMRPLAIWLFIFNVSQQMGGFYLCQPGPPSEK

Product Description

Activity

Yes

Expression Systems

Mammalian cell

Tag

C-hFc

Form

Lyophilized powder

Reconstitution

Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration).

Endotoxin

<1.0 EU/μg

Purity

>80% as determined by SDS-PAGE

Buffer

0.2 μm filtered 20 mM PB, 150 mM NaCl, 0.05% NaN₃, pH 7.4

Storage

Store at +4°C for up to one week or several months at -80°C

Target

Target Protein

CD19

Full Name

CD19 molecule

Introduction

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.

Alternative Names

ELISA Kit deficiency due to defect in CD19; deficiency due to defect in CD19; included; AW495831; B lymphocyte antigen CD19; B lymphocyte surface antigen B4; B-lymphocyte antigen CD19; B-lymphocyte surface antigen B4; B4; CD19; CD19 antigen; CD19 molecule; Cd19 protein; CD19_HUMAN; CVID3; Differentiation antigen CD19; Leu 12; Leu-12; Leu12; MGC109570; MGC12802; T-cell surface antigen Leu-12

Gene ID

[930](#)

UniProt ID

[P15391](#)