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Product Information

MemDX™ Membrane Protein Human CD19 (CD19 molecule) without tag for Antibody Discovery

Cat. No.: **MP0181X**
This product is for research use only and is not intended for diagnostic use.

This product is a 61.1 kDa Human CD19 membrane protein expressed in *in vitro* wheat germ expression system. 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
Full-length

Molecular Weight
61.1 kDa

TMD
1

Sequence
MPPPRLLFFLLFLTPMEVRPEEPLVVKVEEGDNAVLQCLKGTSDGPTQQLTWSRESPLKPFLKLSLGLPGLGIHMRPLAIWLFIFNVS

Product Description

Application
Antibody Production

Expression Systems
in vitro wheat germ expression system

Tag
NO

Protein Format
Liposome

Form

Liquid

Purification

None

Buffer

25 mM Tris-HCl of pH8.0 containing 2% glycerol

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

B4; MGC12802; B-lymphocyte antigen CD19; CD19 antigen

Gene ID

930

UniProt ID

P15391

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