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Product Information

MemDX™ Antibody Discovery - Human CD19 (20-291) Membrane Protein, Partial, -His -Avi tag, [Biotin]

Cat. No.: **MP1206F**
This product is for research use only and is not intended for diagnostic use.

This membrane protein is Human CD19 (20-291). It has been tested in SDS-PAGE, ELISA, SPR, FACS. We provide this protein to facilitate your membrane protein antibody discovery and development.

Product Specifications

Host Species
Human

Target Protein
CD19

Protein Length
ECD

Molecular Weight
The protein has a calculated MW of 33.7 kDa. The protein migrates as 50-65 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Sequence
AA Pro 20 - Lys 291 (Accession # P15391-1).

Product Description

Activity
Yes

Application
SDS-PAGE, ELISA, SPR, FACS

Expression Systems
HEK293

Tag
His tag at the C-terminus, followed by an Avi tag.

Protein Format
Soluble

Form

LYOPH

Reconstitution

Please see Certificate of Analysis for specific instructions.

Endotoxin

<1.0 EU/μg by the LAL method

Conjugation

Biotin

Purity

>90% as determined by SDS-PAGE.

Buffer

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.

Storage

Stored at lyophilized form at -20°C or lower. Avoid repeated freeze-thaw cycles.
The antigen can be stable for 12 months in lyophilized form after storage at -20°C to -80°C, 3 months under sterile coditions after reconstitution after storage 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

CD19, CD19 molecule, CD19 antigen, B-lymphocyte antigen CD19, differentiation antigen CD19, T-cell surface antigen Leu-12, B-lymphocyte surface antigen B4, B4, CVID3, MGC12802,

Gene ID

930

UniProt ID

P15391