

Recombinant Human CD20/MS4A1 Protein (aa 213-297, His Tag)

Catalog No. PKSH031312

Note: Centrifuge before opening to ensure complete recovery of vial contents.

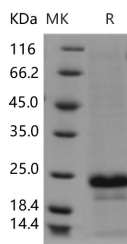
Description

Synonyms	B1;Bp35;CD20;CVID5;LEU-16;MS4A1;MS4A2;S7
Species	Human
Expression Host	HEK293 Cells
Sequence	Glu213-Pro297
Accession	NP_068769.2
Calculated Molecular Weight	12.1 kDa
Observed molecular weight	23 kDa
Tag	N-His
Bioactivity	Not validated for activity

Properties

Purity	> 83 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 83 % as determined by reducing SDS-PAGE.

Background

CD20 (membrane-spanning 4-domains; subfamily A; member 1); also known as MS4A1; is a member of the membrane-spanning 4A gene family. Members of this nascent protein family are characterized by common structural features and

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similar intron/exon splice boundaries and display unique expression patterns among hematopoietic cells and nonlymphoid tissues. CD20 / MS4A1 is expressed on all stages of B cell development except the first and last. CD20 / MS4A1 is present from pre-pre B cells through memory cells; but not on either pro-B cells or plasma cells. It is a B-lymphocyte surface molecule which plays a role in the development and differentiation of B-cells into plasma cells. CD20 / MS4A1 may be involved in the regulation of B-cell activation and proliferation. Defects in CD20 / MS4A1 are the cause of immunodeficiency common variable type 5 (CVID5). CVID5 is a primary immunodeficiency characterized by antibody deficiency; hypogammaglobulinemia; recurrent bacterial infections and an inability to mount an antibody response to antigen. The defect results from a failure of B-cell differentiation and impaired secretion of immunoglobulins; the numbers of circulating B-cells is usually in the normal range; but can be low.