

## Recombinant Human CD20/MS4A1 Protein (TrxA Tag)

**Catalog Number:** PKSH030304

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

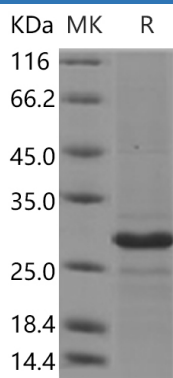
### Description

|                      |   |
|----------------------|---|
| <b>Species</b>       | Human   |
| <b>Source</b>        | E.coli-derived Human CD20/MS4A1 protein Ile 141-Ser 188, with an N-terminal Trx |
| <b>Calculated MW</b> | 23.9 kDa  |
| <b>Accession</b>     | NP_068769.2   |
| <b>Bio-activity</b>  | Not validated for activity  |

### Properties

|                       |  |
|-----------------------|--|
| <b>Purity</b>         | > 80 % as determined by reducing SDS-PAGE.   |
| <b>Endotoxin</b>      | Please contact us for more information.  |
| <b>Storage</b>        | 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. |
| <b>Shipping</b>       | This product is provided as lyophilized powder which is shipped with ice packs.  |
| <b>Formulation</b>    | Lyophilized from sterile 50 mM Tris, 150 mM NaCl, 1 mM EDTA, pH 8.0<br>Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.   |
| <b>Reconstitution</b> | Please refer to the specific buffer information in the printed manual.<br>Please refer to the printed manual for detailed information.   |

### Data



> 80 % as determined by reducing SDS-PAGE.

### Background

### For Research Use Only

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 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.