**Product** Data Sheet

**Proteins** 

# CD20/MS4A1 Protein, Human (Cell-Free, His)

Cat. No.: HY-P702381

Synonyms: B-lymphocyte antigen CD20; B-lymphocyte surface antigen B1; Bp35; Leukocyte surface antigen

Leu-16; Membrane-spanning 4-domains subfamily A member 1

Human Species:

E. coli Cell-free Source: Accession: P11836 (M1-P297)

Gene ID: 931

Molecular Weight: 34.6 kDa

# **PROPERTIES**

AA Sequence	3
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MTTPRNSVNG TFPAEPMKGP IAMQSGPKPL FRRMSSLVGP TQSFFMRESK TLGAVQIMNG LFHIALGGLL MIPAGIYAPI CVTVWYPLWG GIMYIISGSL LAATEKNSRK CLVKGKMIMN MILSIMDILN IKISHFLKME SLNFIRAHTP SLSLFAAISGYINIYNCEPA NPSEKNSPST QYCYSIQSLF LGILSVMLIF AFFQELVIAG IVENEWKRTC SRPKSNIVLL SAEEKKEQTI EIKEEVVGLT ETSSQPKNEE DIEIIPIQEE EEEETETNFP

EPPQDQESSP IENDSSP

# **Appearance**

Lyophilized powder.

#### Formulation

Lyophilized from a 0.22 µm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

# **Endotoxin Level**

<1 EU/µg, determined by LAL method.

#### Reconsititution

It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH<sub>2</sub>O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.

### Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

#### Shipping

Room temperature in continental US; may vary elsewhere.

## **DESCRIPTION**

# Background

The CD20/MS4A1 protein, a B-lymphocyte-specific membrane protein, plays a crucial role in regulating cellular calcium influx essential for the development, differentiation, and activation of B-lymphocytes. It functions as a component of the store-operated calcium (SOC) channel, promoting calcium influx upon activation by the B-cell receptor/BCR. CD20/MS4A1 forms homotetramers, contributing to its structural organization and functional role in calcium signaling. Notably, it interacts with both the heavy and light chains of cell surface IgM, the antigen-binding components of the BCR, highlighting its involvement in the B-cell receptor complex and underscoring its significance in B-cell activation and immune responses.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA

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