

## Product Data Sheet

## CD20/MS4A1 Protein, Cynomolgus (85a.a, HEK293, His)

Cat. No.:	HY-P75433
Synonyms:	Ms4a1; Cd20; Ly-44; Ms4a2; B-lymphocyte antigen CD20; B-cell differentiation antigen Ly-44; Lymphocyte antigen 44; CD antigen
Species:	Cynomolgus
Source:	HEK293
Accession:	NP_001274241 (E213-P297)
Gene ID:	102118491
Molecular Weight:	22.66 & 24.28 kDa

PROPERTIES	
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AA Sequence	ENEWRRTCSR PKSSVVLLSA EEKKEQVIEI KEEVVGLTET SSQPKNEEDI EIIPIQEEEE EETETNFPEP PQDQESSPIE NDSSP
Biological Activity	Measured in a cytotoxicity assay using Ramos cells. The ED <sub>50</sub> this effect is 23.57 ng/mL, corresponding to a specific activity is 4.243×10 <sup>4</sup> units/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 $\mu m$ filtered solution of PBS, pH 7.4 or 20 mM PB, 150 mM NaCl, pH 7.4.
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 a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
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

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

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