

## CD20 Protein, Human, Recombinant (Flag)

## General Information

Synonyms:	B-lymphocyte surface antigen B1;B-lymphocyte antigen CD20;Membrane-spanning 4-domains subfamily A member 1;MS4A1;Leukocyte surface antigen Leu-16;Bp35;CD20
Protein Construction:	Met1-Pro297
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P11836
Molecular Weight:	33-37 kDa (reducing condition)
AA Sequence:	Met1-Pro297

## QC Testing

Biological Activity:	1. Loaded Anti-Human CD20 mAb-Fc on AHC Biosensor, can bind Human CD20-Flag with an affinity constant of 3.47 pM as determined in BLI assay. (Regularly tested) 2. Immobilized Human CD20-Flag at 2µg/ml (100 µl/well) can bind Anti-Human CD20 mAb . The ED50 of Anti-Human CD20 mAb is 11.09 ng/ml. (Regularly tested)
Purity:	Greater than 70% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.1 ng/µg (1 EU/µg) as determined by LAL test.
Formulation:	Supplied as a 0.2 µm filtered solution of 50 mM HEPES, 150 mM NaCl, 0.06% DDM, 0.012% CHS, 10% Glycerol, pH 7.4.

## Preparation and Storage

## Stability &amp; Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

*Actual storage temperature shall be subject to the COA.*

## Shipping:

Proteins are shipped with blue ice.

## Protein Background

CD20 is a 33-37 kDa non-glycosylated protein expressed on the surface of normal and malignant B lymphocytes, and belongs to the MS4A (membrane-spanning 4-domain family A) protein family. CD20 protein consists of four hydrophobic transmembrane domains, one intracellular and two extracellular domains (large and small loops) with both N- and C- termini residing within the cytosol. CD20 is also known to be physically coupled to major histocompatibility complex class II (MHCII), CD40 molecule, BCR, and the C-terminal src kinase-binding protein (CBP) that interacts with Src kinases such as LYN, FYN, and LCK. CD20 deficiency resulted in a reduced number of circulating memory B cells, reduced isotype switching of Ig, and decreased IgG antibody levels. In agreement with

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this observation, challenging the patient's primary B cells in vitro using T-dependent and T-independent antigens led to the normal proliferation and secretion of IgM but reduced production of IgG.

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