# Data Sheet (Cat.No.TMPJ-00185)

TargetMol

## CD20 Protein, Human, Recombinant (His & Flag)

### General Information

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| Synonyms: | CD20;Membrane-spanning 4-domains subfamily A member 1;B-lymphocyte surface antigen B1;Leukocyte surface antigen Leu-16;Bp35;MS4A1;B-lymphocyte antigen CD20 |
| Protein Construction: | Met1-Pro297 |
| Species: | Human |
| Expression Host: | HEK293 Cells |
| Accession: | P11836 |
| Molecular Weight: | 34-40 kDa (reducing condition) |
| AA Sequence: | Met1-Pro297 |

### QC Testing

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| Biological Activity: | Loaded Anti-Human CD20 mAb-Fc on AHC Biosensor, can bind Human CD20-His-Flag with an affinity constant of 1.3 pM as determined in BLI assay. (Regularly tested) |
| Purity: | Greater than 80% 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-Na, 150 mM NaCl, 0.02%DDM, 0.004% CHS, 5%Glycerol, pH7.5. |

### Preparation and Storage

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

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