

**Anti-CD59 Antibody**  
**Catalog # ABO12754****Specification**

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**Anti-CD59 Antibody - Product Information**

Application	IHC-P, IHC-F, FC, ICC
Primary Accession	<a href="#">P13987</a>
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for CD59 glycoprotein(CD59) detection. Tested with IHC-P, IHC-F, ICC, FCM in Human.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-CD59 Antibody - Additional Information**

**Gene ID** 966

**Other Names**

CD59 glycoprotein, 1F5 antigen, 20 kDa homologous restriction factor, HRF-20, HRF20, MAC-inhibitory protein, MAC-IP, MEM43 antigen, Membrane attack complex inhibition factor, MACIF, Membrane inhibitor of reactive lysis, MIRL, Protectin, CD59, CD59, MIC11, MIN1, MIN2, MIN3, MSK21

**Calculated MW**

14177 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, By Heat  
Immunohistochemistry(Frozen Section), 0.5-1 µg/ml  
Immunocytochemistry, 0.5-1 µg/ml  
Flow Cytometry, 1-3<sup>1</sup>/<sub>4</sub>g/1x10<sup>6</sup>cells

**Subcellular Localization**

Cell membrane; Lipid-anchor, GPI-anchor. Secreted. Soluble form found in a number of tissues.

**Protein Name**

CD59 glycoprotein

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>.

**Immunogen**

E.coli-derived human CD59 recombinant protein (Position: L26-N102). Human CD59 shares 47.1% amino acid (aa) sequence identity with rat CD59.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

**Sequence Similarities**

Contains 1 UPAR/Ly6 domain.

**Anti-CD59 Antibody - Protein Information**

**Name** CD59 {ECO:0000303|PubMed:2475570, ECO:0000312|HGNC:HGNC:1689}

**Function**

Potent inhibitor of the complement membrane attack complex (MAC) action, which protects human cells from damage during complement activation (PubMed:<a href="http://www.uniprot.org/citations/11882685" target="\_blank">11882685</a>, PubMed:<a href="http://www.uniprot.org/citations/1698710" target="\_blank">1698710</a>, PubMed:<a href="http://www.uniprot.org/citations/2475111" target="\_blank">2475111</a>, PubMed:<a href="http://www.uniprot.org/citations/2475570" target="\_blank">2475570</a>, PubMed:<a href="http://www.uniprot.org/citations/2606909" target="\_blank">2606909</a>, PubMed:<a href="http://www.uniprot.org/citations/9053451" target="\_blank">9053451</a>). Acts by binding to the beta-2-microglobulin of C8 (C8A and C8B) components of the assembling MAC, forming an intermolecular beta-sheet that prevents incorporation of the multiple copies of C9 required for complete formation of the osmolytic pore (PubMed:<a href="http://www.uniprot.org/citations/11882685" target="\_blank">11882685</a>, PubMed:<a href="http://www.uniprot.org/citations/1698710" target="\_blank">1698710</a>, PubMed:<a href="http://www.uniprot.org/citations/36797260" target="\_blank">36797260</a>).

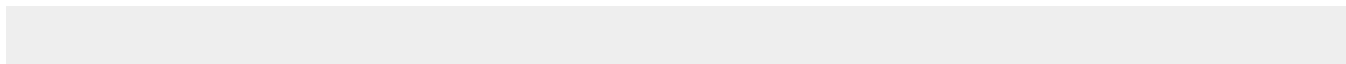
**Cellular Location**

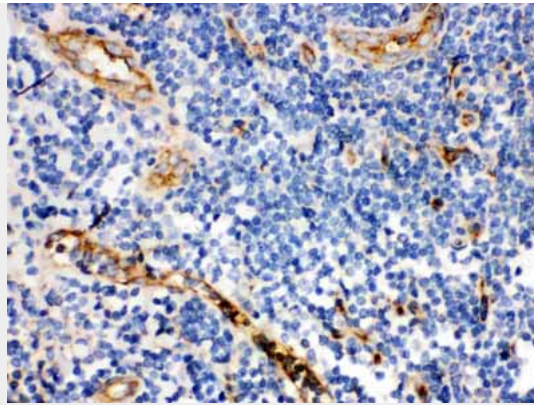
Cell membrane; Lipid-anchor, GPI-anchor. Secreted. Note=Localizes to the cell surface (PubMed:36797260). Soluble form found in a number of tissues (PubMed:8670172).

**Anti-CD59 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-CD59 Antibody - Images**



Anti- CD59 antibody, ABO12754, IHC(P)IHC(P): Human Tonsil Tissue

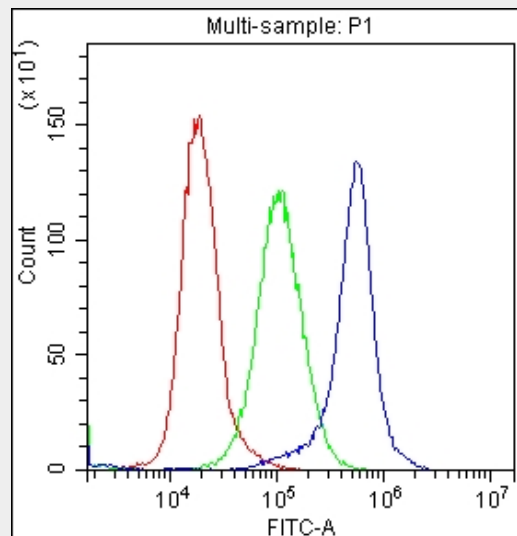


Figure 2. Flow Cytometry analysis of K562 cells using anti-CD59 antibody (ABO12754). Overlay histogram showing K562 cells stained with ABO12754 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CD59 Antibody (ABO12754,  $1\frac{1}{4}\mu\text{g}/1 \times 10^6$  cells) for 30 min at  $20^\circ\text{C}$ . DyLight<sup>®</sup>488 conjugated goat anti-rabbit IgG (BA1127,  $5 \cdot 10\frac{1}{4}\mu\text{g}/1 \times 10^6$  cells) was used as secondary antibody for 30 minutes at  $20^\circ\text{C}$ . Isotype control antibody (Green line) was rabbit IgG ( $1\frac{1}{4}\mu\text{g}/1 \times 10^6$ ) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

### Anti-CD59 Antibody - Background

This gene encodes a cell surface glycoprotein that regulates complement-mediated cell lysis, and it is involved in lymphocyte signal transduction. And this protein is a potent inhibitor of the complement membrane attack complex, whereby it binds complement C8 and/or C9 during the assembly of this complex, thereby inhibiting the incorporation of multiple copies of C9 into the complex, which is necessary for osmolytic pore formation. It also plays a role in signal transduction pathways in the activation of T cells. Mutations in this gene cause CD59 deficiency, a disease resulting in hemolytic anemia and thrombosis, and which causes cerebral infarction. Multiple alternatively spliced transcript variants, which encode the same protein, have been identified for this gene.