

# Anti-hCD20-hIgM

Monoclonal human IgM antibody against human CD20

Catalog # hcd20-mab5

For research use only, not for diagnostic or therapeutic use

Version # 11J13-MM

## PRODUCT INFORMATION

**Content:** 100 µg purified anti-hCD20-hIgM antibody, provided azide-free and lyophilized.

**Isotype:** Human IgM

**Formulation:** 0.2 µm filtered solution in 68 mM phosphate buffer with 91 mM glycine, 5% w/v saccharose and stabilizing agents.

### Antibody resuspension

Add 1 ml of sterile water to obtain a concentration of 0.1 mg/ml.

### Storage

- Product is shipped at room temperature. Store lyophilized antibody at -20°C. Lyophilized product is stable for 1 year.  
- Reconstituted antibody is stable 1 month when stored at 4°C and 6 months when aliquoted and stored at -20°C. Avoid repeated freeze-thaw cycles.

## DESCRIPTION

Anti-hCD20-hIgM features the constant region of the human IgM isotype and the variable region of rituximab. Rituximab is a mouse/human chimeric monoclonal antibody that targets the CD20 antigen found on the surface of malignant and normal B lymphocytes. Binding of rituximab to CD20 results in cell destruction through different mechanisms including direct signaling of apoptosis, complement activation and cell-mediated cytotoxicity. Rituximab has been approved by the FDA for the treatment of various lymphoid malignancies, including B-cell non-Hodgkin's lymphoma and B-cell chronic lymphocytic leukemia.

Human IgM is the first antibody produced during an immune response. IgM exists mainly as a pentamer with ten antigen binding sites. Due to its polymeric nature, IgM is the most efficient antibody for activating the classical complement pathway.

Anti-hCD20-hIgM was generated by recombinant DNA technology. It has been produced in CHO cells and purified by affinity chromatography with protein L / agarose.

## APPLICATIONS

Anti-hCD20-hIgM targets the human CD20 antigen found on the surface of malignant and normal B lymphocytes.

## ANTIBODY ISOTYPE COLLECTION

For your research, InvivoGen provides an anti-CD20 isotype collection. This collection consists of monoclonal antibodies comprising the variable region of rituximab, and the constant region of the most common human and murine isotypes; eight in humans (IgG1, IgG2, IgG3, IgG4, IgM, IgA1, IgA2, IgE) and three in mice (IgG1, IgG2a, IgA). The isotypes differ in their functional locations and effector functions, such as CDC and ADCC, as presented in the table below.

Name	Types	Description
IgG	4	Major Ig in serum, placental transfer CDC (hIgG3>hIgG1>hIgG2>hIgG4; mIgG2a>mIgG1) ADCC (hIgG1≥hIgG3>hIgG2≥IgG4; mIgG2a>mIgG1)
IgM	1	Third most common serum Ig, first Ig to be made Good CDC, some ADCC
IgA	2	Major class in secretions, second most common serum Ig monomer in serum, dimer in secretions. No CDC, some ADCC
IgE	1	Least common serum Ig, involved in allergic reaction Strong binding to Fc receptors on basophils, no CDC

## RELATED PRODUCTS

Product	Catalog Code
Anti-hCD20-hIgG1	hcd20-mab1
Anti-hCD20-hIgG2	hcd20-mab2
Anti-hCD20-hIgG3	hcd20-mab3
Anti-hCD20-hIgG4	hcd20-mab4
Anti-hCD20-hIgA1	hcd20-mab6
Anti-hCD20-hIgA2	hcd20-mab7
Anti-hCD20-hIgE	hcd20-mab8
Anti-hCD20-mIgG1	hcd20-mab9
Anti-hCD20-mIgG2a	hcd20-mab10
Anti-hCD20-mIgA	hcd20-mab11

An anti-hTNF-α (adalimumab) isotype collection is also available, for more information visit [www.invivogen.com/antibody-isotypes](http://www.invivogen.com/antibody-isotypes)

## TECHNICAL SUPPORT

InvivoGen USA (Toll-Free): 888-457-5873  
InvivoGen USA (International): +1 (858) 457-5873  
InvivoGen Europe: +33 (0) 5-62-71-69-39  
InvivoGen Hong Kong: +852 3-622-34-80  
E-mail: [info@invivogen.com](mailto:info@invivogen.com)