

Anti-hCD20-hIgG4

Monoclonal human IgG4 antibody against human CD20

Catalog # hcd20-mab4

For research use only, not for diagnostic or therapeutic use

Version # 11J21-MM

PRODUCT INFORMATION

Content: 100 µg purified anti-hCD20-hIgG4 antibody, provided azide-free and lyophilized.

Isotype: Human IgG4

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-hIgG4 features the constant region of the human IgG4 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 IgG4 is the least common IgG present in serum. Human IgG4 displays low antibody-dependent cell-mediated cytotoxicity (ADCC) and no complement-dependent cytotoxicity (CDC).

Anti-hCD20-hIgG4 was generated by recombinant DNA technology. It has been produced in CHO cells and purified by affinity chromatography with protein G / agarose.

APPLICATIONS

Anti-hCD20-hIgG4 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-hCD20 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 complement-dependent cytotoxicity (CDC) and antibody-dependent cell-mediated cytotoxicity (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-hIgM	hcd20-mab5
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

TECHNICAL SUPPORT

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