

Anti-hCD20-hIgE

Monoclonal human IgE antibody against human CD20

Catalog # hcd20-mab8

For research use only, not for diagnostic or therapeutic use

Version # 11J07-MM

PRODUCT INFORMATION

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

Isotype: Human IgE

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-hIgE features the constant region of the human IgE 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 IgE is the least common isotype in serum. IgE can trigger allergic reactions following binding to the surface of basophils and mast cells via its Fc region. IgE displays no complement-dependent cytotoxicity (CDC). While antibodies are generally very stable, IgE is an exception and is heat labile.

Anti-hCD20-hIgE 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-hIgE 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-hIgM | hcd20-mab5 |
| Anti-hCD20-hIgA1 | hcd20-mab6 |
| Anti-hCD20-hIgA2 | hcd20-mab7 |
| 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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