

Anti-hCD20-hIgG1

Monoclonal human IgG1 antibody against human CD20
Catalog code: hcd20-mab1, hcd20-mab1-03, hcd20-mab1-1
<https://www.invivogen.com/anti-human-cd20-rituximab>

For research use only, not for diagnostic or therapeutic use

Version 24A25-AK

PRODUCT INFORMATION

Contents: Anti-hCD20-hIgG1 purified monoclonal antibody (mAb) is provided azide-free and lyophilized. It is available in two quantities:

hcd20-mab1: 100 µg Anti-hCD20-hIgG1

hcd20-mab1-03: 3 x 100 µg Anti-hCD20-hIgG1

hcd20-mab1-1: 1 mg Anti-hCD20-hIgG1

Target: Human CD20

Clonality: Monoclonal antibody

Isotype: Human IgG1, kappa

Source: CHO cells

Formulation: 0.2 µm filtered solution in sodium phosphate buffer with glycine, saccharose, and stabilizing agents

Purity: Purified by affinity chromatography with protein G

Storage and stability

- Product is shipped at room temperature. Upon receipt, store at -20°C.
- Reconstituted antibody is stable for 1 month when stored at 4°C and for 1 year when aliquoted and stored at -20°C. Avoid repeated freeze-thaw cycles.

Quality control

- Binding to human CD20 has been tested using flow cytometry.
- The complete sequence of this antibody has been verified.
- The absence of bacterial contamination (e.g. lipoproteins and endotoxins) has been confirmed using HEK-Blue™ TLR2 and HEK-Blue™ TLR4 cells.

DESCRIPTION

Anti-hCD20-hIgG1 features the constant region of the human IgG1 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 IgG1 is the most abundant immunoglobulin present in serum and binds with high affinity to the Fc receptor on phagocytic cells. The human IgG1 isotype displays high antibody-dependent cell-mediated cytotoxicity (ADCC) and complement-dependent cytotoxicity (CDC). Anti-hCD20-hIgG1 was generated by recombinant DNA technology. It has been produced in CHO cells and purified by affinity chromatography with protein G.

APPLICATIONS

Anti-hCD20-hIgG1 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 human (h) and mouse (m) isotypes; hlgG1, hlgG1fut, hlgG1NQ, hlgG2, hlgG3, hlgG4, hlgG4(S228P), hlgA2, mlgG1, and mlgG2a. 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.

| Effector functions | Human isotypes | | | | | | | Mouse isotypes | |
|--------------------|----------------|----------|---------|------|------|-----------------------|------|----------------|-------|
| | IgG1 | IgG1 fut | IgG1 NQ | IgG2 | IgG3 | IgG4 and IgG4 (S228P) | IgA2 | IgG1 | IgG2a |
| ADCC | ++ | ++++ | - | +/- | ++ | +/- | + | +/- | ++ |
| ADCP | +++ | +++ | - | +/- | ++ | + | + | + | +++ |
| CDC | ++ | ++ | +/- | + | +++ | - | - | - | ++ |

METHODS

Antibody resuspension (100 µg/ml)

Note: Ensure you see the lyophilized pellet before resuspension.

- Add 1 ml of sterile water to 100 µg and gently pipette until completely resuspended.

RELATED PRODUCTS

| Product | Catalog Code |
|------------------------------------|--------------|
| Anti-β-Gal-hlgG2 (isotype control) | bgal-mab2 |
| Anti-hCD20-hlgA2 | hcd20-mab7 |
| Anti-hCD20-hlgG1fut | hcd20-mab13 |
| Anti-hCD20-hlgG1NQ | hcd20-mab12 |
| Anti-hCD20-hlgG2 | hcd20-mab2 |
| Anti-hCD20-hlgG3 | hcd20-mab3 |
| Anti-hCD20-hlgG4 | hcd20-mab4 |
| Anti-hCD20-hlgG4 (S228P) | hcd20-mab14 |
| Anti-hCD20-mlgG1 | hcd20-mab9 |
| Anti-hCD20-mlgG2a | hcd20-mab10 |

Other antibody isotype families are available, such as Anti-hTNF-α, Anti-hPD1 and Anti-βGal (control). For more information, please visit www.invivogen.com/biosimilar-antibody-isotypes.

TECHNICAL SUPPORT

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