

## **Anti-Human CD20** **Purified *in vivo* GOLD™ Functional Grade** **Monoclonal Antibody**

### **Product Information**

**Product No.:** C1652  
**Clone:** 2H7  
**RRID:** AB\_2737454  
**Isotype:** Mouse IgG2b  $\kappa$   
**Storage:** Sterile 2-8°C

### **Product Description**

#### **Specificity:**

Clone 2H7 recognizes an epitope on human CD20.

#### **Antigen Distribution:**

CD20 is present on human pre B lymphocytes and on B lymphocytes, except on plasma cells, and is expressed in tandem with surface IgM. It is also expressed in some follicular dendritic cells and at low levels on a T cell subset.

#### **Background:**

CD20 is a 33-37 kD transmembrane-spanning phosphoprotein that facilitates optimal B-cell immune response against T-independent antigens. It can exist in a complex with MHC class I, MHC class II, CD53, CD81, and CD82. However, CD20 can also form homo-oligomers. It has been suggested that homo-oligomerization of CD20 forms calcium ion channels in the plasma membrane of B cells. CD20 can be useful in diagnosing B-cell lymphomas and leukemias, and is the target of mAbs in the treatment of all B cell lymphomas, leukemias, and B cell-mediated autoimmune diseases. Interestingly, studies show a link between the immune system's B cells and diabetes mellitus in which anti-CD20 antibodies rendered the T cell antibodies dysfunctional and, hence, unable to cause insulin desensitization by a B cell antibody-modulated autoimmune response.

#### **Known Reactivity Species:**

Human

#### **Format:**

*in vivo* GOLD™, Purified *in vivo* Functional Grade

#### **Immunogen:**

Human tonsillar B cells

#### **Formulation**

This monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.

#### **Purity**

≥95% monomer by analytical SEC, >95% by SDS Page

#### **Endotoxin**

< 1.0 EU/mg as determined by the LAL method

#### **Storage and Stability**

Functional grade preclinical antibodies may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at ≤ -70°C. **Avoid Repeated Freeze Thaw Cycles.**

#### **Product Preparation**

Functional grade preclinical antibodies are manufactured in an animal free facility using *in vitro* cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.

**Products are for research use only. Not for use in diagnostic or therapeutic procedures.**

# Product Datasheet

[www.leinco.com](http://www.leinco.com)



## Applications

### Applications and Recommended Usage (Quality Tested By Leinco):

**FC** The suggested concentration for this 2H7 antibody for staining cells in flow cytometry is  $\leq 1.0 \mu\text{g}$  per  $10^6$  cells in a volume of 100  $\mu\text{l}$  or 100 $\mu\text{l}$  of whole blood. Titration of the reagent is recommended for optimal performance for each application.

**WB** The suggested concentration for this 2H7 antibody for use in western blotting is 1-10  $\mu\text{g/ml}$ .

### Other Applications Reported in Literature:

**CyTOF®**

### Country of Origin

USA

### References

1. Stashenko, P. et al. (1980) J. Immunol. 125:1678
2. Fang, D. et al. (2005) Cancer Res. 65:9328
3. Bubien, J. K. et al. (1993) J. Cell Biol. 121:1121
4. White, M. W. et al. (1991) J. Immunol. 146:846

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