

Store at  
-20C  
#74293**IgM Antibody**

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Endogenous	80	Rabbit	#P01871	3507

**Product Usage Information****Application**

Western Blotting

**Dilution**

1:1000

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. *Do not aliquot the antibody.*

**Specificity/Sensitivity**

IgM Antibody recognizes endogenous levels of total IgM heavy chain protein.

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of the human IgM heavy chain constant region. Antibodies are purified by protein A and peptide affinity chromatography.

**Background**

Immunoglobulin M (IgM) is one of the five major human immunoglobulin isotypes and is the first antibody to be secreted by plasmablasts in a humoral immune response after exposure to antigen. Structurally, IgM is the largest immunoglobulin and predominantly exists in pentameric form when secreted (1). Alternative splicing of the IgM heavy chain mRNA can generate an alternative form of the antibody, which facilitates its insertion into the plasma membrane of B cells to function in antigen recognition. IgM is the first Ig isotype to appear on the surface of developing B cells and is a major component of the B cell antigen receptor (BCR) signaling complex, which drives B cell survival and proliferation upon antigen-induced ligation (2,3). Research studies have shown that defects in the assembly of the BCR account for the low levels of surface IgM expression in B-chronic lymphocytic leukemia (4,5). test

This product detects a SARS-CoV-2-related target for research into the mechanisms of the Novel Coronavirus, which has caused the COVID-19 pandemic.

**Background References**

1. Fazel, S. et al. (1997) *Int Immunol* 9, 1149-58.
2. Tseng, J. et al. (1994) *Immunol Res* 13, 299-310.
3. DeFranco, A.L. et al. (1995) *Ann N Y Acad Sci* 766, 195-201.
4. Vuillier, F. et al. (2005) *Blood* 105, 2933-40.
5. Payelle-Brogard, B. et al. (2002) *Br J Haematol* 118, 976-85.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting

**Cross-Reactivity Key**

**H:** Human

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