# Data Sheet (Cat.No.TMAB-03889)

TargetMol

## Anti-CD19 Antibody (4E471)

### Product Details

| | |
|---|---|
| Ig Type: | IgG |
| Reactivity: | Human |
| Molecular Weight: | Theoretical: 59 kDa. Actual: 75 kDa. |
| Clone: | 4E471 |
| Purification: | Protein A purified |

### Applications

| | |
|---|---|
| Verified Activity: | 1. Paraformaldehyde-fixed, paraffin embedded Human Spleen; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with CD19 Monoclonal Antibody, Unconjugated (TMAB-03889) at 1: 200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L Secondary Antibody-HRP and DAB staining.<br>2. Paraformaldehyde-fixed, paraffin embedded Human Thymus; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with CD19 Monoclonal Antibody, Unconjugated (TMAB-03889) at 1: 200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L Secondary Antibody-HRP and DAB staining.<br>3. Paraformaldehyde-fixed, paraffin embedded Human Tonsil; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with CD19 Monoclonal Antibody, Unconjugated (TMAB-03889) at 1: 200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L Secondary Antibody-HRP and DAB staining.<br>4. Paraformaldehyde-fixed, paraffin embedded Human Lymph; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with CD19 Monoclonal Antibody, Unconjugated (TMAB-03889) at 1: 200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L Secondary Antibody-HRP and DAB staining.<br>5. Paraformaldehyde-fixed, paraffin embedded Human Colon Cancer; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with CD19 Monoclonal Antibody, Unconjugated (TMAB-03889) at 1: 200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L Secondary Antibody-HRP and DAB staining.<br>6. 25 μg total protein per lane of various lysates (see on figure) probed with CD19 monoclonal antibody, unconjugated (TMAB-03889) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r. T. for 60 min.<br>7. The Raji (H) cells were incubated in 5% BSA to block non-specific protein-protein interactions (30 min at r. T.), followed by secondary antibody incubation for 40 min at room temperature. Primary Antibody (green): Rabbit Anti-CD19 antibody (TMAB-03889, 1:100); Isotype Control (orange): Rabbit IgG. Blank control (black): PBS. Acquisition of 20,000 events was performed.<br>8. 4% Paraformaldehyde-fixed Raji (H) cell; Antibody incubation with (CD19) monoclonal Antibody, unconjugated (TMAB-03889) 1:100, 90 min at 37°C; followed by conjugated Goat Anti-Rabbit IgG antibody (green) at 37°C for 90 min, DAPI (blue) was used to stain the cell nuclei. PBS instead of the primary antibody was used as the blank control.<br>9. Paraformaldehyde-fixed, paraffin embedded Human Colon; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with CD19 Monoclonal Antibody, Unconjugated (TMAB-03889) at 1: 200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L Secondary Antibody-HRP and DAB staining. |

| | |
|---|---|
| Application: | WB,IHC-P,IF,IHC-Fr,FCM,ICC/IF |
| Recommended | WB: 1:1000-5000; IHC-P: 1:200-500; IF: 1:200-500; IHC-Fr: 1:200-500; FCM: 1:50-100; ICC/IF: 1:50-200 |

## Properties

| | |
|---|---|
| Stability & Storage: | Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. |
| Shipping: | Shipping with blue ice. |

## Antigen Details

| | |
|---|---|
| Immunogen: | A synthesized peptide: human CD19 |
| Antigen Species: | Human |
| Gene ID: | 930 |
| Uniprot ID: | P15391 |

## Research Background

This gene encodes a member of the immunoglobulin gene superfamily. Expression of this cell surface protein is restricted to B cell lymphocytes. This protein is a reliable marker for pre-B cells but its expression diminishes during terminal B cell differentiation in antibody secreting plasma cells. The protein has two N-terminal extracellular Ig-like domains separated by a non-Ig-like domain, a hydrophobic transmembrane domain, and a large C-terminal cytoplasmic domain. This protein forms a complex with several membrane proteins including complement receptor type 2 (CD21) and tetraspanin (CD81) and this complex reduces the threshold for antigen-initiated B cell activation. Activation of this B-cell antigen receptor complex activates the phosphatidylinositol 3-kinase signalling pathway and the subsequent release of intracellular stores of calcium ions. This protein is a target of chimeric antigen receptor (CAR) T-cells used in the treatment of lymphoblastic leukemia. Mutations in this gene are associated with the disease common variable immunodeficiency 3 (CVID3) which results in a failure of B-cell differentiation and impaired secretion of immunoglobulins. CVID3 is characterized by hypogammaglobulinemia, an inability to mount an antibody response to antigen, and recurrent bacterial infections. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2020]

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only· Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481