

# Rabbit anti-Human IgM mAb

Catalog No.: A24260

## Basic Information

### Observed MW

75kDa

### Calculated MW

49kDa

### Category

Primary antibody

### Applications

ELISA,WB,IF/ICC,FC

### Cross-Reactivity

Human

### CloneNo number

ARC63173

## Background

Immunoglobulins (Ig) are the antigen recognition molecules of B cells. An Ig molecule is made up of 2 identical heavy chains and 2 identical light chains (see MIM 147200) joined by disulfide bonds so that each heavy chain is linked to a light chain and the 2 heavy chains are linked together. Each Ig heavy chain has an N-terminal variable (V) region containing the antigen-binding site and a C-terminal constant (C) region, encoded by an individual C region gene, that determines the isotype of the antibody and provides effector or signaling functions. The heavy chain V region is encoded by 1 each of 3 types of genes: V genes (see MIM 147070), joining (J) genes (see MIM 147010), and diversity (D) genes (see MIM 146910). The C region genes are clustered downstream of the V region genes within the heavy chain locus on chromosome 14. The IGHM gene encodes the C region of the mu heavy chain, which defines the IgM isotype. Naive B cells express the transmembrane forms of IgM and IgD (see IGHD; MIM 1471770) on their surface. During an antibody response, activated B cells can switch to the expression of individual downstream heavy chain C region genes by a process of somatic recombination known as isotype switching. In addition, secreted Ig forms that act as antibodies can be produced by alternative RNA processing of the heavy chain C region sequences. Although the membrane forms of all Ig isotypes are monomeric, secreted IgM forms pentamers, and occasionally hexamers, in plasma (summary by Janeway et al., 2005).

## Recommended Dilutions

|               |                |
|---------------|----------------|
| <b>WB</b>     | 1:500 - 1:1000 |
| <b>IF/ICC</b> | 1:50 - 1:200   |
| <b>FC</b>     | 1:500 - 1:1000 |

## Immunogen Information

### Gene ID

3507

### Swiss Prot

P01871

### Immunogen

Recombinant fusion protein containing a sequence corresponding to amino acids 218-453 of Human IgM(P01871).

### Synonyms

MU; VH; AGM1; Human IgM

## Contact

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## Product Information

### Source

Rabbit

### Isotype

IgG

### Purification

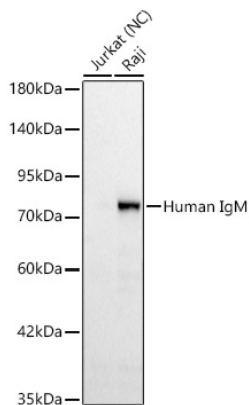
Affinity purification

### Storage

Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS with 0.05% proclin300,0.05% BSA,50% glycerol,pH7.3.

## Validation Data



Western blot analysis of lysates from Raji cells, using Rabbit anti-Human IgM mAb (A24260) at 1:1000 dilution.

Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.

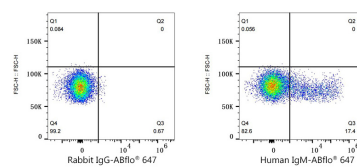
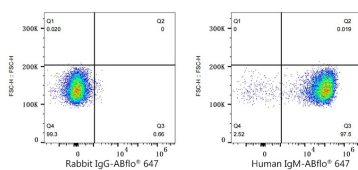
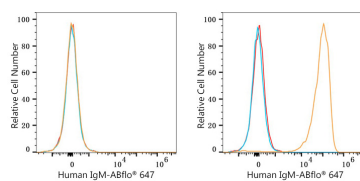
Lysates/proteins: 25ug per lane.

Blocking buffer: 3% nonfat dry milk in TBST.

Detection: ECL Basic Kit (RM00020).

Negative control (NC): Jurkat

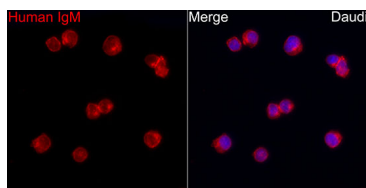
Exposure time: 20s.



Flow cytometry:  $1 \times 10^6$  Jurkat cells (negative control, left) and Daudi cells (right) were surface-stained with Rabbit anti-Human IgM mAb (A24260, 2  $\mu\text{g}/\text{mL}$ , orange line) or ABflo® 647 Rabbit IgG isotype control (A22070, 5  $\mu\text{l}/\text{Test}$ , blue line), followed by Alexa Fluor® 647 conjugated goat anti-rabbit pAb staining. Non-fluorescently stained cells were used as blank control (red line).

Flow cytometry:  $1 \times 10^6$  Daudi cells were surface-stained with Rabbit IgG isotype control (AC042, 2  $\mu\text{g}/\text{mL}$ , left) or Rabbit anti-Human IgM mAb (A24260, 2  $\mu\text{g}/\text{mL}$ , right), followed by Alexa Fluor® 647 conjugated goat anti-rabbit pAb staining.

Flow cytometry:  $1 \times 10^6$  Human PBMC were surface-stained with Rabbit IgG isotype control (AC042, 2  $\mu\text{g}/\text{mL}$ , left) or Rabbit anti-Human IgM mAb (A24260, 2  $\mu\text{g}/\text{mL}$ , right), followed by Alexa Fluor® 647 conjugated goat anti-rabbit pAb staining.



Confocal imaging of Daudi cells using Rabbit anti-Human IgM mAb (A24260, dilution 1:200), (Red). DAPI was used for nuclear staining (blue). Objective: 40x.