Leader in Biomolecular Solutions for Life Science

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ABflo® 488 Rabbit anti-Human IgM mAb

Catalog No.: A24694

Basic Information

Observed MW

Calculated MW
49kDa/51kDa

Category
Primary antibody

Applications
IF/ICC,FC

Cross-Reactivity
Human

CloneNo number
ARC63173-ABflo488

Conjugate
ABflo® 488. Ex:491nm. Em:516nm.

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).[supplied by OMIM, Aug 2010]

Recommended Dilutions

IF/ICC	1:50-1:200
FC	5 µl per 10^6 cells in 100 µl volume

Immunogen Information

Gene ID
3507

Swiss Prot
P01871-1

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

Synonyms
IGHM; AGM1; MU; VH; immunoglobulin heavy constant mu

Contact

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Product Information

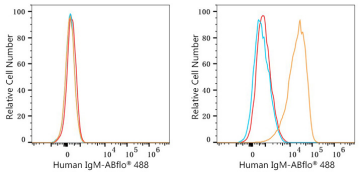
Source
Rabbit

Isotype
IgG

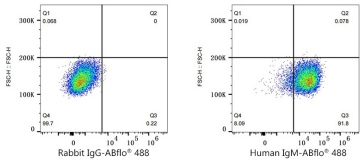
Purification
Affinity purification

Storage
Store at 2-8℃. Avoid freeze.
Buffer: PBS with 0.03% proclin300,0.2% BSA,pH7.3.

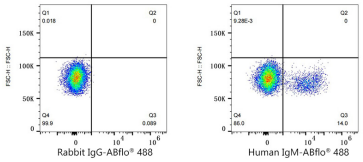
Validation Data



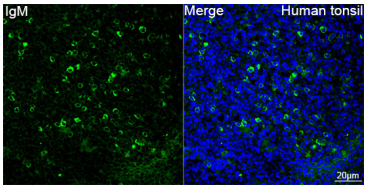
Flow cytometry: 1X10^6 Jurkat cells (negative control,left) and Daudi cells (right) were surface-stained with ABflo® 488 Rabbit anti-Human IgM mAb (A24694,5 µl/Test,orange line) or ABflo® 488 Rabbit IgG isotype control (A22069,5 µl/Test,blue line). Non-fluorescently stained cells were used as blank control (red line).



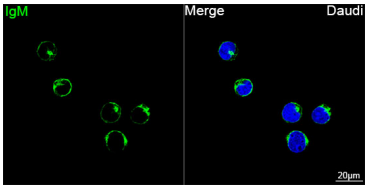
Flow cytometry: 1X10^6 Daudi cells were surface-stained with ABflo® 488 Rabbit IgG isotype control (A22069,5 µl/Test,left) or ABflo® 488 Rabbit anti-Human IgM mAb (A24694,5 µl/Test,right).



Flow cytometry: 1X10^6 Human PBMC were surface-stained with ABflo® 488 Rabbit IgG isotype control (A22069,5 µl/Test,left) or ABflo® 488 Rabbit anti-Human IgM mAb (A24694,5 µl/Test,right).



Confocal imaging of paraffin-embedded Human tonsil tissue using ABflo® 488 Rabbit anti-Human IgM mAb (A24694, dilution 1:100). DAPI was used for nuclear staining (Blue). High pressure antigen retrieval performed with 0.01M Citrate Buffer (pH 6.0) prior to IF staining. Objective: 40x.



Confocal imaging of Daudi cells using ABflo® 488 Rabbit anti-Human IgM mAb (A24694, dilution 1:100). DAPI was used for nuclear staining (Blue). Objective: 100x.