

IgM (RMM-1): sc-53761

BACKGROUND

Immunoglobulin M (IgM) is the largest circulating antibody molecule in humans. It consists of a heavy chain (μ -chain) and a light chain (κ or λ chain), as well as five base units and ten binding sites, though it cannot bind all ten simultaneously because of steric hindrance. IgM chain C refers to the constant region of the IgM heavy chain that is involved in immune regulation. IgM forms polymers by covalently linking multiple immunoglobulins together with disulfide bonds. It normally exists as a pentamer, but occasionally as a hexamer. Because of its polymeric nature, IgM has high avidity, and it is especially effective at complement activation. Due to its large size, IgM does not diffuse well, and it is found in the interstitium in very low amounts. IgM is mainly found in serum; however, because of the J chain, it is also important as a secretory immunoglobulin. IgM is the first immunoglobulin expressed by mature B cells, and it normally appears early in the course of an infection and does not reappear after further exposure.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Ighm (mouse) mapping to 12 F1.

SOURCE

IgM (RMM-1) is a rat monoclonal antibody raised against IgGs and IgM, IgE, IgA cocktail of mouse origin and screened for anti-mouse IgM.

PRODUCT

Each vial contains 200 μ g IgG_{2a} in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

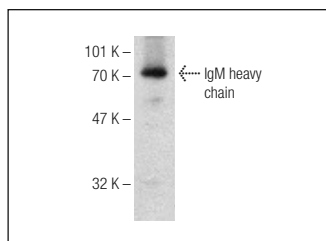
IgM (RMM-1) is recommended for detection of IgM of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and flow cytometry (1 μ g per 1 x 10⁶ cells); non cross-reactive with other isotypes.

Molecular Weight of IgM heavy (μ) chain: 76-92 kDa.

Molecular Weight of IgM light (κ/λ) chain: 25-30 kDa.

Positive Controls: NFS-5 C-1 whole cell lysate.

DATA



IgM (RMM-1): sc-53761. Western blot analysis of IgM expression in NFS-5 C-1 whole cell lysate.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.