MONOCLONAL ANTIBODY TO
RAT CD46
clone MM.1

Catalog no: HM3038 (lot number and expiry date are indicated on the label)

Description: The monoclonal antibody MM.1 recognizes CD46, also known as membrane cofactor protein. An immunohistological survey of rat tissues revealed that CD46 is expressed only in the testis and epididymis of adult rats more specifically, only by spermatozoa and late spermatozoal precursors. In contrast, in humans, CD46 is expressed on every cell and tissue, with the exception of erythrocytes. CD46 serves to down-regulate the activation of complement on host tissue. It functions as a cofactor by binding to C3b and C4b. Binding is permitted by factor I, a serine protease of plasma, to degrade C3b and C4b and serves to protect the host cell against autologous attack. In human, it also serves as a receptor for measles virus.

Two isoforms of CD46 predominate and arise by alternative splicing of a single CD46 gene. The isoforms differ in the length. CD46 cDNA encodes a signal sequence followed by four complement control protein domains (also called short consensus repeats (SCR)).

Aliases: Membrane cofactor protein

Immunogen: Second and third SCR domains of MCP fused to IgG-Fc; MCP23-Ig

Species: Mouse IgG1

Formulation: 1 ml (100 µg/ml) 0.2 µm filtered antibody solution in PBS, containing 0.1% bovine serum albumin and 0.02% sodium azide.

Application

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<tr>
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<th>F1,3</th>
<th>FC</th>
<th>FS</th>
<th>IA1</th>
<th>IF2,4</th>
<th>IP</th>
<th>P</th>
<th>W1,4</th>
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N.D. = Not Determined; F = Frozen sections; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IF = Immuno Fluorescence; IP = Immuno Precipitation; P = Paraffin sections; W = Western blot

1 Application immuno assay has been tested by Hycult Biotech. 1-4 The following applications Immunohistochemistry with frozen sections, western blotting and immunofluorescence are based on literature data and are not tested by Hycult Biotech.

References

1. Mizuno, M et al. Rat membrane cofactor protein (MCP; CD46) is expressed only in the acrosome of developing and mature spermatozoa and mediates binding to immobilized activated C3. Biol reprod 2004, 71: 1374

Use: For immunohistology, immunofluorescence and Western blotting, dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

Positive control: Western blotting: rat testis lysate, non-reducing conditions, band size 38 kDa (Ref. 1 and 4)

Storage and stability: Product should be stored at 4°C. Under recommended storage conditions, product is stable for one year.

Precautions: For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

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#### clone MM.1

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<th>Also available</th>
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<td>HM112</td>
<td>Monoclonal antibody against Mouse CR1/CRI2, clone 7E9</td>
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<tr>
<td>HM115</td>
<td>Monoclonal antibody against Mouse DAF, clone 3D5</td>
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<td>HM116</td>
<td>Monoclonal antibody against Mouse CD59a, clone 7A6</td>
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<tr>
<td>HM118</td>
<td>Monoclonal antibody against Mouse CD46, clone MM10</td>
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