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ProductInformation

Monoclonal Anti-Rat IgM, Clone RTM-32
Mouse Ascites Fluid

Product Number **R 0886**

Monoclonal anti-Rat IgM (mouse IgG1 isotype) is derived from the RTM-32 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a rat IgM myeloma preparation.

Monoclonal anti-Rat IgM recognizes an epitope located on the heavy chain of rat IgM. The antibody detects the rat IgM derived from normal serum or myeloma proteins, but not the other rat immunoglobulins. By immunoblotting, it localizes the denatured-reduced heavy chain molecule of rat IgM (µ-chain). By indirect ELISA and dot blot, weak cross-reaction is observed with guinea pig immunoglobulins, but not with IgG or serum preparations of bovine, cat, chicken, dog, goat, horse, human, mouse, pig, rabbit, or sheep. Monoclonal anti-Rat IgM may be used for the localization of rat IgM using various immunochemical assays such as ELISA, immunoblot, dot blot and immunocytochemistry. The antibody is also applicable as a secondary antibody in immunohistochemistry of human tissue where it does not react against the tissue itself.

Rat immunoglobulins are subdivided into five classes; IgM, IgG, IgA, IgE, IgD, and four IgG subclasses; IgG1, IgG2a, IgG2b, and IgG2c, on the basis of the structural, biological, physiochemical and electrophoretic properties of their heavy chains.[1] The rat has been extensively used as a research model in pharmacology, oncology and the study of the immunology of aging. Rat polyclonal and monoclonal antibodies[2,3] have come into widespread use as primary antibodies. Secondary antibodies to rat immunoglobulin subclasses may be particularly valuable in double labeling experiments and for isotyping or immunoaffinity purification of rat-derived antibodies. Anti-rat antibodies are commonly produced by xenogeneic immunization of rabbits, goats or sheep, resulting in antibodies that cross-react with other immunoglobulin subclasses of rat and of other species, unless extensively adsorbed.

Monoclonal anti- rat immunoglobulins, which are devoid of any binding capacity to human and many other species can serve as an essential tool in many applications, especially when used as a secondary reagent in immunohistochemistry.

Reagents
The product is provided as ascites fluid with 15 mM sodium azide as a preservative.

Precautions and Disclaimer
Due to the sodium azide content a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling practices.

Storage/Stability
For continuous use, store at 2-8 °C. For extended storage, freeze in working aliquots. Repeated freezing and thawing is **not** recommended. Storage in "frost-free" freezers is **not** recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use.

Product Profile
An antibody titer of 1:1,000 was determined by indirect ELISA, using 2 µg/ml freshly prepared rat myeloma protein for coating.

Note: Second antibodies against mouse immunoglobulins may cross-react with the rat protein coated on the microtiter plate, unless properly adsorbed with rat immunoglobulins.

In order to obtain best results in different techniques and preparations, it is recommended that each individual user determine their optimum working dilutions by titration assay.

References
1. Bazin, H., et al., Eur. J. Immunol., **4**, 44 (1974).
2. Springer, T.A., et al., Hybridoma, **1**, 257 (1982).
3. Bazin, H., (ed.) " Rat Hybridomas and Rat Monoclonal Antibodies", CRC Press, Boca Raton Florida (1990).

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