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ProductInformation

MONOCLONAL ANTI-MOUSE LAMBDA LIGHT CHAINS
(Bound and Free) Clone 9A8
Ascites Fluid

Product Number **L 2280**

Product Description

Monoclonal Anti-Mouse Lambda Light Chains (rat IgG1 isotype) is derived from the 9A8 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from Wistar rat. Purified mouse myeloma protein M315 was used as the immunogen.[1] The isotype was determined by radial immunodiffusion.

Monoclonal Anti-Mouse Lambda Light Chains recognizes an epitope located in the V$\lambda 2^{315}$ domain of the mouse immunoglobulin molecule. This V (variable) domain epitope is also expressed on $\lambda 1$ and $\lambda 3$ chains.[1] The product does not cross-react with the mouse kappa light chain (bound and free). The antibody binds isolated chains and complete immunoglobulins from normal serum and myeloma proteins. It detects soluble immunoglobulin (RIA),[1] immunoglobulin bound to nitrocellulose (immunoblotting),[1] immunoglobulin immobilized on polystyrene (indirect and capture ELISA)[1-3] and surface immunoglobulin intercalated in cell membranes (immunofluorescence and flow cytometry).[1]

Description

Immunoglobulins are symmetrical molecules composed of two identical heavy chains and two identical light chains. There are two types of light chains, kappa and lambda. Each immunoglobulin molecule contains either kappa or lambda light chains. In mouse, there is only one kappa light chain class, but there are three lambda chain classes ($\lambda 1$-$\lambda 3$). About 5% of normal immunoglobulin in most inbred strains of mice carry the lambda type of light chains, of which $\lambda 1$ comprises about 80% and $\lambda 2$, $\lambda 3$ the remaining 20%.[1,4] The mouse has been extensively used as a research model in pharmacology, oncology, and in studies of immunological systems. Mouse polyclonal and monoclonal antibodies have come into a widespread use as primary antibodies. Secondary antibodies to lambda light chains are valuable for the detection, quantification, isotyping, and purification of mouse immunoglobulins expressing lambda light chains. Anti-mouse antibodies are commonly produced by xenogeneic immunization of rabbits, goats, or sheep, resulting in antibodies that cross-react with immunoglobulins of other species, unless extensively adsorbed. Monoclonal anti-mouse immunoglobulins which are devoid of any binding capacity to human and many other species can therefore serve as an essential tool in many applications.

Monoclonal Anti-Mouse Lambda Light Chains may be used for the localization of mouse lambda light chains and lambda chain-bearing immunoglobulins, using various immunochemical assays such as indirect ELISA, capture ELISA, immunoblot, dot blot ,immunocytochemistry, flow cytometry, and RIA. The antibody is easily purified on protein G immunosorbents and may be biotinylated or conjugated with fluorescein isothiocyanate without loss of capacity to bind.[1]

Reagents

The product is provided as ascites fluid produced in SCID (Severe Combined Immuno-Deficient) mice 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 hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C. For extended storage, the solution may be frozen 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

The antibody titer (minimum 1:5,000) was determined in an ELISA using 10 µg/ml of mouse myeloma protein containing lambda light chains as the coating protein.

Second antibody against rat immunoglobulins may cross-react with the mouse protein. Exercise caution in the selection of the second antibody.

In order to obtain best results, it is recommended that each individual user determine their working dilution by titration assay.

References

1. Bogen, B., Scand. J. Immunol., **29**, 273 (1989).
2. Weiss, S., and Bogen, B., Cell, **64**, 767 (1991).
3. Bogen, B., et al., EMBO J., **12**, 357 (1993).
4. Bothwell, A. L., et al., Nature, **298**, 380 (1982).

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