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Product Information

Monoclonal Anti-HMG-1

Clone HAP46.5

Purified Mouse Immunoglobulin

Product Number **H 9537**

Product Description

Monoclonal Anti-HMG-1 (mouse IgG1 isotype) is derived from the HAP46.5 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mouse immunized with purified human recombinant HMG-1. The isotype is determined using Sigma ImmunoType™ Kit (Product Code ISO-1) and by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents (Product Code ISO-2).

Monoclonal Anti-HMG-1 recognizes human, canine, mouse, rat, and chicken HMG-1. The antibody may be used in various immunochemical applications including ELISA and immunoblotting (approx. 25 kDa).

HMG-1 (High-Mobility-Group protein, amphoterin) is a highly conserved protein with more than 95% amino acid identity between rodent and human HMG-1. It is a prevalent non-histone chromatin component and a non-sequence specific DNA binding protein. HMG-1 consists of two homologous HMG boxes rich in basic amino acids and an acidic tail at the carboxy-terminus.¹⁻⁸

HMG-1 is involved in the regulation of chromatin structure as well as being involved, either as positive or negative factors with various aspects of DNA replication, transcription, repair, and ligation.¹⁻⁴ HMG-1, identified as a membrane associated protein termed “amphoterin,” mediates neurite outgrowth,⁵ tumor outgrowth, and metastasis.⁶ It participates in plasminogen activation⁷ and is recognized as a late mediator of endotoxin lethality in mice.⁸

Monoclonals antibodies specific for HMG-1 are an essential tool for studying the biology of transcription.

Reagent

Monoclonal Anti-HMG-1 is supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Antibody Concentration: Approx. 1.5 mg/ml

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 up to one month. For prolonged storage, freeze in working aliquots at -20 °C. Repeated freezing and thawing is not recommended. Storage in “frost-free” freezers is also not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

By immunoblotting, a working antibody concentration of 0.5-1 µg/ml is recommended using a total cell extract of human MCF breast carcinoma cells.

Note: In order to obtain the best results in various techniques and preparations, we recommend determining optimal working dilutions by titration.

References

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