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Product Information

Anti-PM/Scl-100

produced in rabbit, affinity isolated antibody

Product Number **P4124**

Product Description

Anti-PM/Scl-100 is developed in rabbit using a synthetic peptide corresponding to amino acid residues 231-245 of human PM/Scl-100 with an N-terminal added cysteine, conjugated to KLH, as immunogen. The corresponding sequence is identical in both rat and mouse PM/Scl-100. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-PM/Scl-100 recognizes human, rat, and mouse PM/Scl-100 by immunoblotting (~100 kDa) and indirect immunofluorescence. Detection of the PM/Scl-100 band by immunoblotting is specifically inhibited with the immunizing peptide. Minor additional bands may be detected in some cell preparations.

Autoantibodies against the PM/Scl antigen have been found in sera from patients with polymyositis (PM), scleroderma (Scl), and PM/Scl overlap syndrome. Such antibodies have been shown to stain the nucleoli in most cell lines and tissues by immunofluorescence and electron microscopic immunocytochemistry suggesting that the PM/Scl antigen plays a role in ribosome synthesis.¹⁻²

The PM/Scl (Exosome component 10) antigen is a multiprotein complex consisting of 11-16 different polypeptides with molecular masses ranging from 20 to 110 kDa including the two major autoantigens designated PM/Scl-100 and PM/Scl-75. This PM/Scl complex has been identified as the human counterpart of the yeast exosome, an RNA-processing complex of 3' 5' exoribonucleases, the two yeast homologues being Rrp6p and Rrp45p respectively.¹⁻³ In addition, six human exosome components, hRrp4p, hRrp40p, hRrp41p, hRrp42p, hRrp46p, and hCsl4p, have been recognized by serum autoantibodies.⁴ The cDNA of PM/Scl-100 has been isolated and characterized.⁵ The Pm/Scl-100 autoantigen contains several linear epitopes, but the major epitope is located in the N-terminal region (amino acid residues 231-245).⁶⁻⁷ The high prevalence of PM/Scl-100 autoantigen in the

PM/Scl complex makes the PM/Scl-100 antibody a very useful diagnostic marker.

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Antibody concentration: ~1.0 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 extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 1-2 µg/mL is recommended using nuclear extracts of HeLa human epithelioid carcinoma cells and a chemiluminescent detection reagent.

Indirect immunofluorescence: a working concentration of 1-2 µg/mL is recommended using rat NRK and mouse NIH3T3 cells.

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

References

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