

# pan nRNP (SPM315): sc-65609

## BACKGROUND

Anti-nuclear antibodies remain prevalent in a large group of autoimmune disorders. The accumulation of anti-nuclear antibodies is characteristic of lupus erythematosus, as well as various other autoimmune diseases such as Sjögren's syndrome, autoimmune hepatitis, dermatomyositis, rheumatoid arthritis and scleroderma. Ribonucleoproteins (RNP) represent a 20-80 nm electron dense nuclear structure, with highest labeling densities found in nuclear ribonucleoprotein (nRNP) particles. One of the main components of the nucleolus, RNPs are comprised of ribonucleic acid (RNA) and protein together, representing an RNA binding motif in an RNA binding protein. Aromatic amino acid residues occupying this RNP motif, create stacking interactions with RNA. Lysine residues expressed exclusively in the helical portion of RNA binding proteins stabilizes relationships with nucleic acids. Pan nRNP antibodies provide detection for a range of RNP proteins.

## REFERENCES

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2. Bauer, K.D., Clevenger, C.V., Endow, R.K., Murad, T., Epstein, A.L. and Scarpelli, D.G. 1986. Simultaneous nuclear antigen and DNA content quantitation using paraffin-embedded colonic tissue and multiparameter flow cytometry. *Cancer Res.* 46: 2428-2434.
3. Bauer, K.D., Clevenger, C.V., Williams, T.J. and Epstein, A.L. 1986. Assessment of cell cycle-associated antigen expression using multiparameter flow cytometry and antibody-acridine orange sequential staining. *J. Histochem. Cytochem.* 34: 245-250.
4. Clevenger, C.V., Epstein, A.L. and Bauer, K.D. 1987. Quantitative analysis of a nuclear antigen in interphase and mitotic cells. *Cytometry* 8: 280-286.
5. Pluss, J.L. and West, S.G. 1987. Idiopathic pulmonary fibrosis associated with high-titer antibodies against nuclear ribonucleoprotein (nRNP): report of three cases. *J. Am. Osteopath. Assoc.* 86: 735-742.
6. Genth, E., Zarnowski, H., Mierau, R., Wohltmann, D. and Hartl, P.W. 1987. HLA-DR4 and Gm(1,3;5,21) are associated with U1-nRNP antibody positive connective tissue disease. *Ann. Rheum. Dis.* 46: 189-196.

## SOURCE

pan nRNP (SPM315) is a mouse monoclonal antibody raised against nuclei from a leukemia cell line of human origin.

## PRODUCT

Each vial contains 100 µg IgM in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

pan nRNP (SPM315) is recommended for detection of pan nRNP of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per  $1 \times 10^6$  cells).

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.