P.O. Box 3286 - Logan, Utah 84323, U.S.A. - Tel. (800) 729-8350 – Tel. (435) 755-9848 - Fax (435) 755-0015 - www.scytek.com

Nuclear Mitotic Apparatus Protein (NuMA); Clone A73-B/D12

(Concentrate)

Availability/Contents:

Item #	**Volume**
RA0251-C.5	0.5 ml

Description:

Species:	Mouse
Immunogen:	Colon carcinoma 174T cells
Clone:	A73-B/D12
Isotype:	IgM, kappa
Entrez Gene ID:	4926 (Human)
Hu Chromosome Loc.:	11q13
Synonyms:	Nuclear Mitotic Apparatus Protein 1; NuMA protein; NUMA1; SP-H antigen; Structural nuclear protein
Mol. Weight of Antigen:	228kDa
Format:	Bioreactor Concentrate with 0.05% Azide.
Specificity:	Recognizes a phosphorylated protein of 228kDa, identified as nuclear mitotic apparatus protein (NuMA). Its epitope is resistant to phosphatases.
Background:	NuMA is an intra-nuclear protein and is present in the nucleus during interphase. At the onset of mitosis, it redistributes from the nucleus to two centrosomal structures that later will become part of the mitotic spindle pole. After anaphase, the protein redistributes from the spindle polar region into the reforming nucleus. NuMA is an essential protein during mitosis for the terminal phases of chromosome separation and/or nuclear reassembly. Recently, a study showed that NuMA is cleaved to a 180 to 200kDa protein during apoptosis. Chromosomal translocation of this gene with the RARA (retinoic acid receptor, alpha) gene on chromosome 17 has been detected in patients with acute promyelocytic leukemia.
Species Reactivity:	Human. Others not known.
Positive Control:	Exponentially growing any cultured human cells. Tonsil or lymph node.
Cellular Localization:	Nuclear
Titer/ Working Dilution:	Immunohistochemistry (Frozen and Formalin-fixed): 1:100-1:200 Flow Cytometry: 5-10 µl/million cells Western Blotting: 1:100-1:200
Microbiological State:	This product is not sterile.

Storage: 2° C 8° C

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Uses/Limitations:

Not to be taken internally.
For Research Use Only.
This product is intended for qualitative immunohistochemistry with normal and neoplastic formalin-fixed, paraffin-embedded tissue sections, to be viewed by light microscopy.
Do not use if reagent becomes cloudy.
Do not use past expiration date.
Non-Sterile.

Ordering Information and Current Pricing at www.scytek.com

Procedure:

1. **Tissue Section Pretreatment (Highly Recommended):** Staining of formalin fixed, paraffin embedded tissue sections is significantly enhanced by pretreatment with Citrate Plus (ScyTek catalog# CPL500).

2. **Primary Antibody Incubation Time:** We suggest an incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.

3. **Visualization:** For maximum staining intensity we recommend the "UltraTek HRP Anti-Polyvalent Lab Pack" (ScyTek catalog# UHP125, see IFU for instructions) combined with the "DAB Chromogen/Substrate Bulk Pack (High Contrast)" (ScyTek catalog# ACV500, see IFU for instructions).

Precautions:

Contains Sodium Azide as a preservative (0.09% w/v).
Do not pipette by mouth.
Avoid contact of reagents and specimens with skin and mucous membranes.
Avoid microbial contamination of reagents or increased nonspecific staining may occur.
This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.

References:

1. Butschak G et al. New monoclonal antibodies recognizing phosphorylated proteins in mitotic cells. Acta Histochem 1995, 97(1):19-31
2. Compton DA and Cleveland DW. NuMA is required for the proper completion of mitosis. J Cell Biol 1993, 120(4):947-57
3. Price CM and Pettijohn DE. Redistribution of the nuclear mitotic apparatus protein (NuMA) during mitosis and nuclear assembly. Properties of purified NuMA protein. Exp Cell Res 1986, 166:295-311.
4. Gueth-Hallonet C et al. Cleavage of the nuclear matrix protein NuMA during apoptosis. Exp Cell Res 1997, 233(1):21-24.

Warranty:

No products or "Instructions For Use (IFU)" are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our IFU or website. Our warranty is limited to the actual price paid for the product. ScyTek Laboratories, Inc. is not liable for any property damage, personal injury, time or effort or economic loss caused by our products. Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining can cause inconsistent results. Variations in fixation and embedding or the inherent nature of the tissue specimen may cause variations in results. Endogenous peroxidase activity or pseudoperoxidase activity in erythrocytes and endogenous biotin may cause non-specific staining depending on detection system used.

Storage: 2° C – 8° C

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