



Qty: 100 µg/200 µL

Mouse anti-Nucleolin

Catalog No. 39-6400

Lot No.

Mouse anti-Nucleolin

FORM

This monoclonal antibody is supplied as a 200 µL aliquot at a concentration of 0.5 mg/mL in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A chromatography.

CLONE: ZN004

ISOTYPE: Mouse IgG2b-kappa

IMMUNOGEN

Synthetic peptide derived from the internal region of the human nucleolin protein, which is 81 and 77% homologous with rat and mouse, respectively

SPECIFICITY

This antibody is specific for the nucleolin (NCL, C23) protein. On Western blots, it identifies the target band at ~102 kDa.

REACTIVITY

Reactivity has been confirmed with human K562 cells by Western blotting and immunofluorescence. Based on amino acid sequence homology, reactivity with mouse and rat is also expected.

Sample	ELISA	Western Blotting	Immuno-fluorescence
Human	ND	+++	+++
Mouse	ND	ND	ND
Rat	ND	ND	ND
Immunogen	+++	N/A	N/A

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

ELISA: 0.1 – 1.0 µg/mL

Western Blotting: 1 µg/mL

Immunofluorescence: 5-10 µg/mL

STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

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PI396400

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BACKGROUND

Nucleolin (NCL, C23) is an abundantly expressed acidic phosphoprotein of exponentially growing cells and is located mainly in dense fibrillar regions of the nucleolus.¹ Nucleolin is the major nucleolar protein of growing eukaryotic cells. It is found associated with intranucleolar chromatin and preribosomal particles, and induces chromatin decondensation by binding to histone H1. It is thought to play a role in pre-rRNA transcription and ribosome assembly.

A cDNA containing the entire coding region of nucleolin has been isolated.² The human *NCL* gene consists of 14 exons with 13 introns, and spans approximately 11 KB. Intron 11 of the *NCL* gene encodes a small nucleolar RNA, termed U20. Cell surface nucleolin has also been described as a specific marker of angiogenic endothelial cells within the vasculature; it may therefore be a useful target molecule for diagnostic tests and drug delivery applications.³

REFERENCES

1. Srivastava M, et al. *FEBS Lett* 250:99-105, 1989.
2. Srivastava M, et al. *J Biol Chem* 265:14922-14931, 1990.
3. Christian S, et al. *J Cell Biol* 163(4):871-878, 2003.

RELATED PRODUCTS

Product	Conjugate	Cat. No.
Protein A	Sepharose [®] 4B	10-1041
rec-Protein G	Sepharose [®] 4B	10-1241

Conjugate	ZyMAX[™] Goat x Rabbit IgG (H+L)	ZyMAX[™] Goat x Mouse IgG (H+L)
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy [™] 3	81-6115	81-6515
Cy [™] 5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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