

#3888 Store at -20°C

NuMA Antibody



Cell Signaling
TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IF-IC	H Mk	Endogenous	238	Rabbit	#Q14980	4926

Product Usage Information

Application

Western Blotting
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

NuMA Antibody detects endogenous levels of total NuMA protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human NuMA.

Background

The nuclear mitotic apparatus protein (NuMA) is a coiled coil protein involved in the formation and maintenance of the mitotic spindle. NuMA plays a role in chromatin organization during interphase, which influences mammary epithelial differentiation (1,2). During apoptosis, carboxy-terminal cleavage of NuMA may amplify signaling in the cell death pathway (2). NuMA is phosphorylated at numerous sites, with phosphorylation at Ser395 occurring in an ATM/ATR-dependent manner in response to DNA damage (3,4). Phosphorylation at Thr2055 by CDK1 is required for spindle pole association of NuMA at the onset of mitosis. Dephosphorylation by PPP2CA leads to enhancement of NuMA at the cell cortex in anaphase and proper cell-cycle progression (5,6).

Background References

1. Abad, P.C. et al. (2007) *Mol Biol Cell* 18, 348-61.
2. Lin, H.H. et al. (2007) *J Biomed Sci* 14, 681-94.
3. Stokes, M.P. et al. (2007) *Proc Natl Acad Sci USA* 104, 19855-60.
4. Matsuoka, S. et al. (2007) *Science* 316, 1160-6.
5. Kotak, S. et al. (2013) *EMBO J* 32, 2517-29.
6. Seldin, L. et al. (2013) *Mol Biol Cell* 24, 3651-62.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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