

NuMA (D49H4) Rabbit mAb

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

Product Usage Information**Application**

Western Blotting
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

NuMA (D49H4) Rabbit mAb detects endogenous levels of total NuMA protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human NuMA protein.

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

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

Cross-Reactivity Key

H: Human **Mk:** Monkey

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