

#2761 Store at -20C

Numb (C44B4) Rabbit mAb

Cell Signaling
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orders@cellsignal.com

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Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP, IF-IC, FC-FP	H	Endogenous	72, 74	Rabbit	#P49757	8650

Product Usage Information

Application

Western Blotting
Immunoprecipitation
Immunofluorescence (Immunocytochemistry)
Flow Cytometry (Fixed/Permeabilized)

Dilution

1:1000
1:50
1:100
1:200

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

Numb (C44B4) Rabbit mAb detects endogenous levels of Numb protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Phe482 of human Numb protein.

Background

Numb contains an amino-terminal phosphotyrosine-binding (PTB) domain and carboxy-terminal endocytic binding motifs for α-adaptin and EH (Eps15 homology) domain-containing proteins, indicating a role in endocytosis (1,2). There are four mammalian Numb splicing isoforms that are differentially expressed and may have distinct functions (3-5). Numb acts as a negative regulator of Notch signaling by promoting ubiquitination and degradation of Notch (6). The protein is asymmetrically segregated into one daughter cell during cell division, producing two daughter cells with different responses to Notch signaling and different cell fates (7,8). The localization of Numb can also be regulated by G-protein coupled receptor (GPCR) and PKC signaling (9).

Background References

1. Berdnik, D. et al. (2002) *Dev. Cell* 3, 221-231.
2. Santolini, E. et al. (2000) *J. Cell Biol.* 151, 1345-1352.
3. Dho, S.E. et al. (1999) *J. Biol. Chem.* 274, 33097-33104.
4. Verdi, J.M. et al. (1999) *Proc. Natl. Acad. Sci. USA* 96, 10472-10476.
5. Toriya, M. et al. (2006) *Dev. Neurosci.* 28, 142-155.
6. McGill, M.A. and McGlade, C.J. (2003) *J. Biol. Chem.* 278, 23196-23203.
7. Verdi, J.M. et al. (1996) *Curr. Biol.* 6, 1134-1145.
8. Reugels, A.M. et al. (2006) *Dev. Dyn.* 235, 934-948.
9. Dho, S.E. et al. (2006) *Mol. Biol. Cell* 17, 4142-4155.

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 **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)
FC-FP: Flow Cytometry (Fixed/Permeabilized)

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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