Store at –20°C

#2756

Numb (C29G11) Rabbit mAb

☑ 100 µl
(10 western blots)

Cell Signaling TECHNOLOGY®

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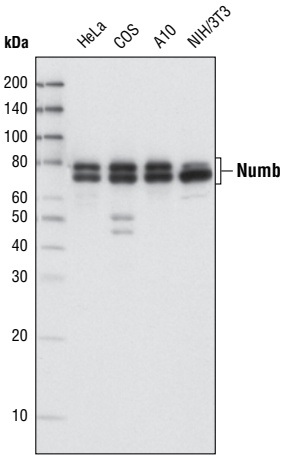
Entrez-Gene ID #8650
Swiss-Prot Acc. #P49757

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP, IF-IC, F Endogenous	H, M, R, Mk	72, 74 kDa	Rabbit IgG**

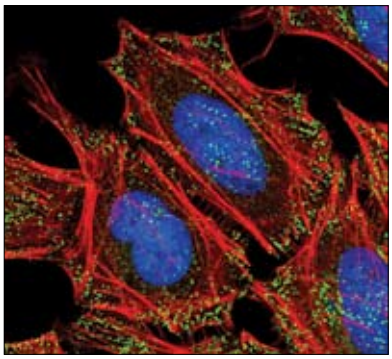
Background: Numb contains an amino-terminal phosphotyrosine-binding (PTB) domain and carboxy-terminal endocytic binding motifs for α-adaptin and EH (Eps15 homology) domain-containing proteins, indicating a role in endocytosis (1,2). There are four mammalian Numb splicing isoforms and they are differentially 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; therefore two daughter cells have different responses to Notch signaling and have different cell fates (7,8). The localization of Numb can also be regulated by G-protein coupled receptor (GPCR) and PKC signaling (9).

Specificity/Sensitivity: Numb (C29G11) Rabbit mAb detects endogenous levels of total Numb protein.

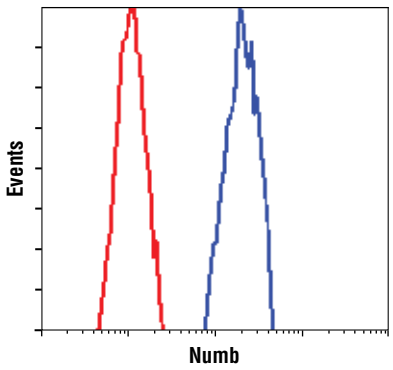
Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala570 of human Numb protein.



Western blot analysis of extracts from various cell lines using Numb (C29G11) Rabbit mAb.



Confocal immunofluorescent analysis of HeLa cells using Numb (C29G11) Rabbit mAb (green). Actin filaments have been labeled with DY-554 phalloidin (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).



Flow cytometric analysis of A204 cells using Numb (C29G11) Rabbit mAb (blue) compared to a nonspecific negative control antibody (red).

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.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western Blotting	1:1000
Immunoprecipitation	1:50
Immunofluorescence (IF-IC)	1:400
Flow Cytometry	1:400

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

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.*, Epub Ahead of Print.

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

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide

Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **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 **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.