

#5276 Store at -20°C

Notch3 (D11B8) Rabbit mAb


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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H	Endogenous	90, 270	Rabbit IgG	#Q9UM47	4854

Product Usage Information	Application Western Blotting Immunoprecipitation	Dilution 1:1000 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	Notch3 (D11B8) Rabbit mAb detects endogenous levels of total Notch3 protein. The antibody recognizes both full-length (FL) Notch3 at 270 kDa and a truncated protein (NTM) containing a short extracellular region, the transmembrane domain and the intracellular region at 90 kDa.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu2312 of human Notch3 protein.	
Background	<p>Notch proteins (Notch1-4) are a family of transmembrane receptors that play important roles in development and the determination of cell fate (1). Mature Notch receptors are processed and assembled as heterodimeric proteins, with each dimer comprised of a large extracellular ligand-binding domain, a single-pass transmembrane domain, and a smaller cytoplasmic subunit (Notch intracellular domain, NICD) (2). Binding of Notch receptors to ligands of the Delta-Serrate-Lag2 (DSL) family triggers heterodimer dissociation, exposing the receptors to proteolytic cleavages; these result in release of the NICD, which translocates to the nucleus and activates transcription of downstream target genes (3,4).</p> <p>Notch3 is a member of the Notch family and is processed similar to Notch1 (5). It is expressed primarily in arterial smooth muscle cells (SMC). Mutations altering the number of cysteine residues in the Notch3 extracellular region are associated with cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy (CADASIL), a hereditary angiopathy leading to strokes and dementia in adults (6-8). Recent studies indicate that Notch3 is overexpressed in many types of cancer (9-11).</p>	
Background References	<ol style="list-style-type: none"> 1. Artavanis-Tsakonas, S. et al. (1999) <i>Science</i> 284, 770-6. 2. Chan, Y.M. and Jan, Y.N. (1998) <i>Cell</i> 94, 423-6. 3. Schroeter, E.H. et al. (1998) <i>Nature</i> 393, 382-6. 4. Rand, M.D. et al. (2000) <i>Mol Cell Biol</i> 20, 1825-35. 5. Baron, M. (2003) <i>Semin Cell Dev Biol</i> 14, 113-9. 6. Kalimo, H. et al. (2002) <i>Brain Pathol</i> 12, 371-84. 7. Karlström, H. et al. (2002) <i>Proc Natl Acad Sci U S A</i> 99, 17119-24. 8. Monet, M. et al. (2007) <i>Hum Mol Genet</i> 16, 982-92. 9. Park, J.T. et al. (2006) <i>Cancer Res</i> 66, 6312-8. 10. Gramantieri, L. et al. (2007) <i>Liver Int</i> 27, 997-1007. 11. Yamaguchi, N. et al. (2008) <i>Cancer Res</i> 68, 1881-8. 	

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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	WB: Western Blotting IP: Immunoprecipitation
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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