

#4235 Store at -20C

NG2 Antibody



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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	H R	Endogenous	250	Rabbit	#Q6UVK1	1464

Product Usage Information	Application Western Blotting	Dilution 1:1000
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	NG2 Antibody detects endogenous levels of total NG2 protein.	
Species predicted to react based on 100% sequence homology:	Mouse	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide surrounding His2260 of human NG2. Antibodies are purified by peptide affinity chromatography.	
Background	The chondroitin sulfate proteoglycan NG2 is a type I membrane protein expressed by subpopulations of glia including oligodendroglial precursor cells and a variety of tumor cells. Normal precursor cells and malignant tumor cells migrate and proliferate, but there is evidence that cells may not be able to engage in both activities at the same time. However, NG2 is involved in promoting both proliferation and motility (1). The extracellular domain of NG2 sequesters growth factors and binds to both growth factor receptors and extracellular matrix ligands such as fibronectin, collagens and laminin. The cytoplasmic domain is involved in activating Rac, Cdc42, and p130 Cas (2). PKCα phosphorylates NG2 at Thr2256, triggering the redistribution of NG2 from apical microprocesses to lamellipodia accompanied by enhanced cell motility (3). ERK phosphorylates NG2 at Thr2314, stimulating cell proliferation (4).	
Background References	<ol style="list-style-type: none"> 1. Karam, K. et al. (2005) <i>J Anat</i> 207, 735-44. 2. Eisenmann, K.M. et al. (1999) <i>Nat Cell Biol</i> 1, 507-13. 3. Makagiansar, I.T. et al. (2004) <i>J Biol Chem</i> 279, 55262-70. 4. Makagiansar, I.T. et al. (2007) <i>J Cell Biol</i> 178, 155-65. 	

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
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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