


#8237 Store at -20C	NCS1 (D12D2) XP [®] Rabbit mAb	
		Orders: 877-616-CELL (2355) orders@cellsignal.com
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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IF-IC	H M R Hm Mk	Endogenous	21	Rabbit IgG	#P62166	23413

Product Usage Information	Application	Dilution
	Western Blotting	1:1000
	Immunoprecipitation	1:50
	Immunofluorescence (Immunocytochemistry)	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	NCS1 (D12D2) XP [®] Rabbit mAb recognizes endogenous levels of total NCS1 protein.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with recombinant protein specific to human NCS1 protein.	
Background	According to affinity and function, calcium-binding proteins are separated into two classes: calcium buffers and calcium sensors. Calmodulin is a well-studied calcium sensor with well-established roles in synaptic plasticity. Neuronal calcium-sensor 1 (NCS1) is also a member of the calcium sensor family, however, its role in synaptic plasticity remains under investigation. NCS1 contains multiple EF-hand calcium-binding motifs and an amino-terminal myristoyl group (1). NCS1 has a large number of binding partners. Most of these protein interactions are calcium-dependent (e.g. dopamine D2 receptor), although some are calcium-independent (e.g. IP ₃ receptor) (2). In murine dentate gyrus, NCS1 promotes synaptic plasticity and rapid acquisition of spatial memory (3).	
Background References	<ol style="list-style-type: none"> Amici, M. et al. (2009) <i>Biochem Soc Trans</i> 37, 1359-63. Burgoyne, R.D. (2007) <i>Nat Rev Neurosci</i> 8, 182-93. Saab, B.J. et al. (2009) <i>Neuron</i> 63, 643-56. 	

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 IP: Immunoprecipitation IF-IC: Immunofluorescence (Immunocytochemistry)
Cross-Reactivity Key	H: Human M: Mouse R: Rat Hm: Hamster Mk: Monkey
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