

#8237 Store at -20°C

## NCS1 (D12D2) XP® Rabbit mAb



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TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP, IF-IC	H M R Hm Mk	Endogenous	21	Rabbit IgG	#P62166	23413

### Product Usage Information

#### Application

Western Blotting  
Immunoprecipitation  
Immunofluorescence (Immunocytochemistry)

#### Dilution

1:1000  
1:50  
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<sub>3</sub> receptor) (2). In murine dentate gyrus, NCS1 promotes synaptic plasticity and rapid acquisition of spatial memory (3).

### Background References

1. Amici, M. et al. (2009) *Biochem Soc Trans* 37, 1359-63.
2. Burgoyne, R.D. (2007) *Nat Rev Neurosci* 8, 182-93.
3. Saab, B.J. et al. (2009) *Neuron* 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

**WB:** Western Blotting **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)

### 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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