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#13226**NIPSNAP1 (D1Y6S) Rabbit mAb**

**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

<b>Applications:</b> W, IP	<b>Reactivity:</b> H M R Mk	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 29	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #Q9BPW8	<b>Entrez-Gene Id:</b> 8508
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**Product Usage Information****Application**

Western Blotting  
Immunoprecipitation

**Dilution**

1:1000  
1:50

**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**

NIPSNAP1 (D1Y6S) Rabbit mAb recognizes endogenous levels of total NIPSNAP1 protein. This antibody does not cross-react with NIPSNAP2 (GBAS) protein. This antibody recognizes the mature 29 kDa form of NIPSNAP1 as described in Okuda-Ashitaka, E. et al. (2012).

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg211 of human NIPSNAP1 protein.

**Background**

4-nitrophenylphosphatase domain and non-neuronal SNAP25-like protein homolog 1 (NIPSNAP1) is a member of a highly conserved family of proteins whose functions include the regulation of channel activity, mitochondrial function and cognitive function.

Interaction of NIPSNAP1 with the putative oncogene Ca<sup>2+</sup>-selective transient receptor potential vanilloid channel 6 (TRPV6) inhibits channel function at the cell membrane (1,2). In prostate cancer cells, alterations in chromatin structure that result in corresponding NIPSNAP1 gene inactivation have been implicated in the malignant phenotype (3).

In mouse brain, NIPSNAP has been shown to interact with mitochondrial amyloid precursor protein (APP), which may facilitate the effect of APP on mitochondrial function. (4). NIPSNAP1 expression is also altered in the brains of phenylketonuria (PKU) mice, implying a role for NIPSNAP1 in PKU-related cognitive impairment (5). NIPSNAP1 has also been implicated in pain transmission through its interaction with the neuropeptide nocistatin (NST) in mouse spinal cord (6).

**Background References**

- Schoeber, J.P. et al. (2008) *Pflugers Arch* 457, 91-101.
- Lehen'kyi, V. et al. (2012) *J Physiol* 590, 1369-76.
- Malhotra, A. et al. (2013) *Cancer Biol Ther* 14, 840-52.
- Tummala, H. et al. (2010) *Eur J Neurosci* 31, 1926-34.
- Surendran, S. et al. (2005) *Neurochem Int* 46, 595-9.
- Okuda-Ashitaka, E. et al. (2012) *J Biol Chem* 287, 10403-13.

**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

**Cross-Reactivity Key**

**H:** Human **M:** Mouse **R:** Rat **Mk:** Monkey

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