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NIPSNAP Antibody
Catalog # ASC10666

Specification

NIPSNAP Antibody - Product Information

Application	**WB, IHC-P, IF, E**
Primary Accession	Q9BPW8
Other Accession	NP_003625, 193211616
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**NIPSNAP antibody can be used for the detection of NIPSNAP by Western blot at 0.5 - 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.**

NIPSNAP Antibody - Additional Information

Gene ID **8508**

Target/Specificity
NIPSNAP1;

Reconstitution & Storage
NIPSNAP antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
NIPSNAP Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

NIPSNAP Antibody - Protein Information

Name NIPSNAP1 {ECO:0000303|PubMed:30982665, ECO:0000312|HGNC:HGNC:7827}

Function
Protein involved in mitophagy by facilitating recruitment of the autophagy machinery required for clearance of damaged mitochondria (PubMed:30982665). Accumulates on the mitochondria surface in response to mitochondrial depolarization and acts as a 'eat me' signal by recruiting proteins involved in selective autophagy, such as autophagy receptors (CALCOCO2/NDP52, NBR1, SQSTM1/p62, TAX1BP1 and WDFY3/ALFY) and ATG8 family proteins (MAP1LC3A, MAP1LC3B, MAP1LC3C, GABARAP, GABARAPL1 and GABARAPL2) (PubMed:30982665).

Cellular Location

Mitochondrion matrix

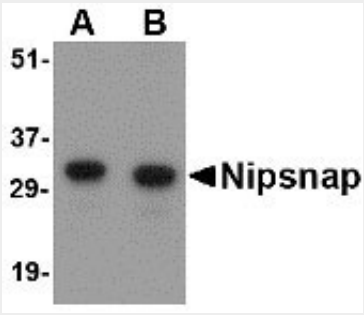
Tissue Location
Ubiquitous (PubMed:9661659). Highest expression in liver (PubMed:9661659).

NIPSNAP Antibody - Protocols

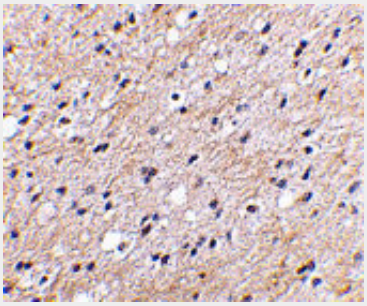
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

NIPSNAP Antibody - Images



Western blot analysis of NIPSNAP in human brain tissue lysate with NIPSNAP antibody at (A) 0.5 and (B) 1 µg/mL.



Immunohistochemical staining of human brain tissue using Nipsnap antibody at 2.5 µg/mL.

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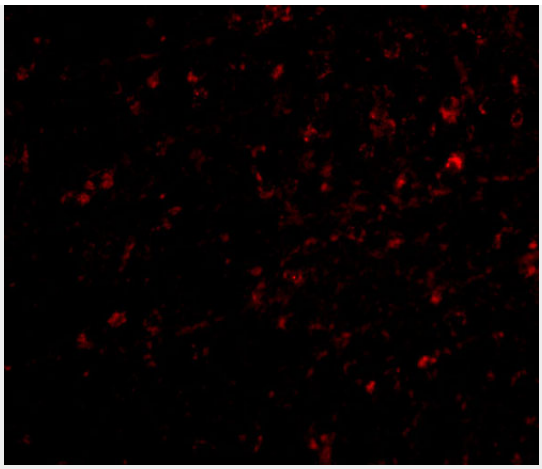

Immunofluorescence of nipsnap in human brain tissue with nipsnap antibody at 20 µg/mL.

NIPSNAP Antibody - Background

NIPSNAP Antibody: NIPSNAP is a member of an evolutionarily well conserved gene family and has a strong sequence similarity to the central portion of a protein encoded by C. elegans chromosome III between a 4-nitrophenylphosphatase (NIP) domain and non-neuronal SNAP25-like protein. Recent studies have indicated that NIPSNAP is involved in the regulation of the Ca2+-selective transient receptor potential vanilloid channel 6 (TRPV6). NIPSNAP1 associates with TRPV6 at the plasma membrane and inhibits TRPV6 currents. Other studies show that NIPSNAP's expression is reduced in the phenylketonuria (PKU) mouse brain, suggesting that NIPSNAP may play a role in memory.

NIPSNAP Antibody - References

Seroussi E, Pan H-Q, Kedra D, et al. Characterization of the human NIPSNAP1 gene from 22q12: a member of a novel gene family. Gene1998; 212:13-20.
Schoeber JP, Topala CN, Lee KP, et al. Identification of Nipsnap1 as a novel auxiliary protein inhibiting TRPV6 activity. Pflugers Arch.2008; epub.
Surendran S, Tyring SK and Matalon R. Expression of calpastatin, minopontin, NIPSNAP1, rabaptin-5 and neuronatin in the phenylketonuria (PKU) mouse brain: possible role on cognitive defect seen in PKU. Neurochem. Int.2005; 46:595-9.