

NIPSNAP Antibody

Catalog # ASC10665

Product Information

Application WB, IF, E, IHC-P

Primary Accession Q9BPW8

Other Accession NP_003625, 193211616
Reactivity Human, Mouse, Rat

Host Rabbit
Clonality Polyclonal
Isotype IgG
Calculated MW 33310
Concentration (mg/ml) 1 mg/mL
Conjugate Unconjugated

Application Notes NIPSNAP antibody can be used for the detection of NIPSNAP by Western blot

at 0.5 - 1 [g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 [g/mL. For immunofluorescence start at 20 [g/mL.

Additional Information

Gene ID 8508

Other Names Protein NipSnap homolog 1, NipSnap1, NIPSNAP1

Target/Specificity NIPSNAP1;

Reconstitution & Storage NIPSNAP antibody can be stored at 4°C for three months and -20°C, 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.

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).

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.

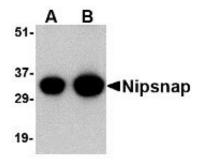
References

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.

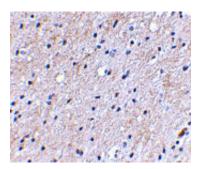
Schoeber JP, Topala CN, Lee KP, et al. Identification of Nipsnap1 as a novel auxiliary protein inhibiting TRPV6 activity. Pflugers Arch.2008; epub.

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.

Images

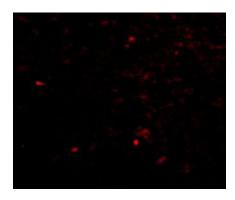


Western blot analysis of NIPSNAP in human brain tissue lysate with NIPSNAP antibody at (A) 0.5 and (B) 1 µg/mL.



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

Immunofluorescence of NIPSNAP in Human Brain cells with NIPSNAP antibody at 20 μ g/mL.



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