10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

NPAS3 Antibody
Catalog # ASC10527

Specification

NPAS3 Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	Q8IXF0
Other Accession	Q8IXF0, 38604888
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**NPAS3 antibody can be used for detection of NPAS3 by Western blot at 0.5 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.**

NPAS3 Antibody - Additional Information

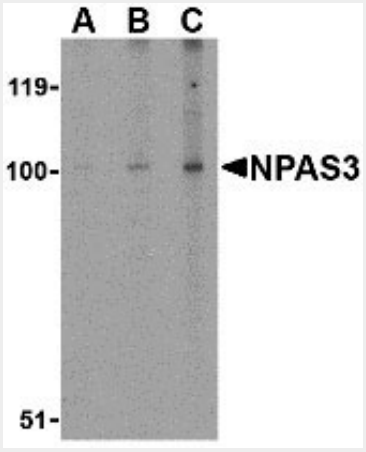
Gene ID **64067**

Other Names
NPAS3 Antibody: MOP6, PASD6, bHLHe12, BHLHE12, MOP6, Neuronal PAS domain-containing protein 3, Basic-helix-loop-helix-PAS protein MOP6, Neuronal PAS3, neuronal PAS domain protein 3

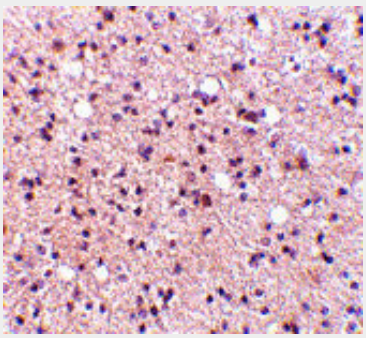
Target/Specificity
NPAS3;

Reconstitution & Storage
NPAS3 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.

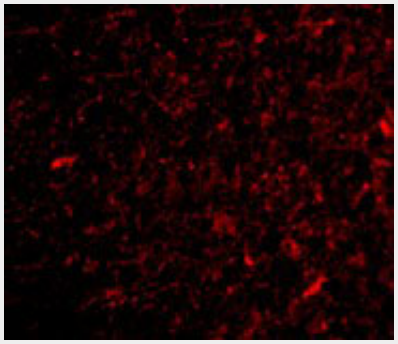
Precautions
NPAS3 Antibody is for research use only and



Western blot analysis of NPAS3 in rat brain tissue lysate with NPAS3 antibody at (A) 0.5, (B) 1 and (C) 2 µg/mL.



Immunohistochemistry of NPAS3 in human brain tissue with NPAS3 antibody at 5 µg/mL.



Immunofluorescence of NPAS3 in Human Brain cells with NPAS3 antibody at 20 µg/mL.

NPAS3 Antibody - Background

not for use in diagnostic or therapeutic procedures.

NPAS3 Antibody - Protein Information

Name NPAS3

Synonyms BHLHE12, MOP6, PASD6

Function
May play a broad role in neurogenesis. May control regulatory pathways relevant to schizophrenia and to psychotic illness (By similarity).

Cellular Location
Nucleus {ECO:0000255|PROSITE-ProRule:PRU00981, ECO:0000269|PubMed:12746393}

Tissue Location
Ubiquitously expressed in the adult brain.

NPAS3 Antibody: Neuronal PAS domain protein 3 (NPAS3) is a brain-enriched basic helix-loop-helix PAS domain transcription factor and is broadly expressed in the developing neuroepithelium and has recently found to be disrupted by genetic translocation in a family affected with schizophrenia. It was recently shown to be involved in the regulation of FGF signaling in the dentate gyrus by controlling the expression of the FGF receptor subtype 1 and in turn neurogenesis emanating from this region. NPAS3-null mice were growth-retarded and displayed brain defects that included reduced size of the anterior hippocampus, hypoplasia of the corpus callosum, and enlargement of the ventricles, as well as several behavioral abnormalities. Furthermore, these NPAS3-null mice also exhibited disruptions in several neurosignaling pathways involving glutamate, dopamine, and serotonin. These results demonstrate the essential role played by NPAS3 during structural and functional brain development. At least three isoforms of NPAS3 are known to exist.

NPAS3 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

NPAS3 Antibody - References

Brunskill EW, Witte DP, Shreiner AB et al. Characterization of npas3, a novel basic helix-loop-helix PAS gene expressed in the developing mouse nervous system. Mech. Dev.1999; 88:237-41.
Kamnasaran D, Muir WJ, Ferguson-Smith MA, et al. Disruption of the neuronal PAS3 gene in a family affected with schizophrenia. J. Med. Genet.40:325-32.
Brunskill EW, Ehrman LA, Williams MT, et al. Abnormal neurodevelopment, neurosignaling and behaviour in Npas3-deficient mice. Euro. J. Neurosci.2005; 22:1265-76.