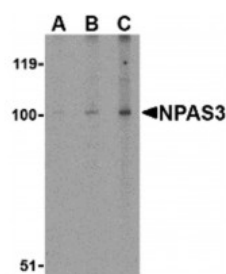


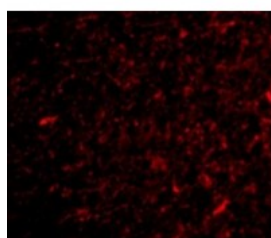


NPAS3 Antibody

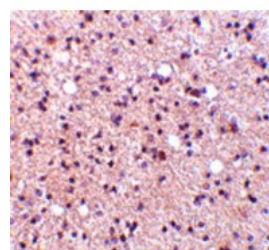
CATALOG NUMBER: 4109



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



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



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

Specifications

SPECIES REACTIVITY:	Human, Mouse, Rat
TESTED APPLICATIONS:	ELISA, IF, IHC-P, WB
APPLICATIONS:	NPAS3 antibody can be used for detection of NPAS3 by Western blot at 0.5 - 2 ug/mL. Antibody can also be used for immunohistochemistry starting at 5 ug/mL. For immunofluorescence start at 20 ug/mL.
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.
POSITIVE CONTROL:	1) Cat. No. 1463 - Rat Brain Tissue Lysate 2) Cat. No. 1303 - Human Brain Tissue Lysate
IMMUNOGEN:	NPAS3 antibody was raised against a 28 amino acid synthetic peptide from near the center of human NPAS3. The immunogen is located within amino acids 470 - 520 of NPAS3.
HOST SPECIES:	Rabbit

Properties

PURIFICATION:	NPAS3 Antibody is affinity chromatography purified via peptide column.
PHYSICAL STATE:	Liquid
BUFFER:	NPAS3 Antibody is supplied in PBS containing 0.02% sodium azide.
CONCENTRATION:	1 mg/mL
STORAGE CONDITIONS:	NPAS3 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.
CLONALITY:	Polyclonal
ISOTYPE:	IgG
CONJUGATE:	Unconjugated

Additional Info

ALTERNATE NAMES:	NPAS3 Antibody: MOP6, PASD6, bHLH ϵ 12, BHLHE12, MOP6, Neuronal PAS domain-containing protein 3, Basic-helix-loop-helix-PAS protein MOP6, Neuronal PAS3
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ACCESSION NO.:	Q8IXF0
PROTEIN GI NO.:	38604888
OFFICIAL SYMBOL:	NPAS3
GENE ID:	64067

Background

BACKGROUND: 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.

REFERENCES:

- 1) 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.
- 2) 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.
- 3) Brunskill EW, Ehrman LA, Williams MT, et al. Abnormal neurodevelopment, neurosignaling and behaviour in Npas3-deficient mice. Euro. J. Neurosci.2005; 22:1265-76.

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December 12, 2016