NPAS3 (NT) antibody (pAb)

Rabbit Anti-Human/Mouse/Rat NPAS3 (NT)

PromoKine

Instruction Manual

Catalog Number	PK-AB718-4107
Synonyms	NPAS3 Antibody: Neuronal PAS domain-containing protein 3, member of Pas protein 6, MOP6
Description	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.
Quantity	100 µg
Source / Host	Rabbit
Immunogen	NPAS3 antibody was raised in rabbits against a 28 amino acid peptide from near the amino terminus of human NPAS3.
Purification Method	Affinity chromatography purified via peptide column.
Clone / IgG Subtype	Polyclonal antibody
Species Reactivity	Human, Mouse, Rat
Specificity	
Formulation	Antibody is supplied in PBS containing 0.02% sodium azide.
Reconstitution	During shipment, small volumes of antibody will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µl or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.
Storage & Stability	Antibody can be stored at 4°C for three months and at -20°C 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.
Applications	E, WB, IHC, IF lNote: Antibody might be suitable for other applications not tested so far. Optimal concentrations for each application have to be determined indivudually.
	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.
Images	Available upon request.
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.
Images	Available upon request.
Related Products	Cat.No. PK-AB718-4107P; NPAS3 Peptide Cat.No. PK-AB718-1220; SK-N-SH Cell Lysate

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