10320 Camino Santa Fe, Suite G
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NPAS4 antibody - middle region
Rabbit Polyclonal Antibody
Catalog # AI10066

Specification

NPAS4 antibody - middle region - Product Information

Application	**WB**
Primary Accession	Q8IUM7
Other Accession	Q8IUM7, NP_849195, NM_178864
Reactivity	**Human, Mouse, Rat, Rabbit, Pig, Dog, Guinea Pig, Horse, Sheep, Bovine**
Predicted	**Human, Mouse, Rat, Rabbit, Pig, Dog, Horse, Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**87 kDa KDa**

NPAS4 antibody - middle region - Additional Information

Gene ID 266743

Alias Symbol	**Le-PAS, NXF, PASD10, bHLHe79**

Other Names
Neuronal PAS domain-containing protein 4, Neuronal PAS4, Class E basic helix-loop-helix protein 79, bHLHe79, HLH-PAS transcription factor NXF, PAS domain-containing protein 10, NPAS4, BHLHE79, NXF, PASD10

Target/Specificity
NXF is a member of the basic helix-loop-helix-PER (MIM 602260)-ARNT (MIM 126110)-SIM (see SIM2, MIM 600892) (bHLH-PAS) class of transcriptional regulators, which are involved in a wide range of physiologic and developmental events.NXF is a member of the basic helix-loop-helix-PER (MIM 602260)-ARNT (MIM 126110)-SIM (see SIM2, MIM 600892) (bHLH-PAS) class of transcriptional regulators, which are involved in a wide range of physiologic and developmental events (Ooe et al., 2004 [PubMed 14701734]).[supplied by OMIM].

Format
Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

Reconstitution & Storage
Add 50 ul of distilled water. Final anti-NPAS4 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at -20°C. Avoid repeat freeze-thaw cycles.

Precautions
NPAS4 antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures.

NPAS4 antibody - middle region - Protein Information

Name NPAS4 (HGNC:18983)

Function
Transcription factor expressed in neurons of the brain that regulates the excitatory-inhibitory balance within neural circuits and is required for contextual memory in the hippocampus (By similarity). Plays a key role in the structural and functional plasticity of neurons (By similarity). Acts as an early-response transcription factor in both excitatory and inhibitory neurons, where it induces distinct but overlapping sets of late-response genes in these two types of neurons, allowing the synapses that form on inhibitory and excitatory neurons to be modified by neuronal activity in a manner specific to their function within a circuit, thereby facilitating appropriate circuit responses to sensory experience (By similarity). In excitatory neurons, activates transcription of BDNF, which in turn controls the number of GABA- releasing synapses that form on excitatory neurons, thereby promoting an increased number of inhibitory synapses on excitatory neurons (By similarity). In inhibitory neurons, regulates a distinct set of target genes that serve to increase excitatory input onto somatostatin neurons, probably resulting in enhanced feedback inhibition within cortical circuits (By similarity). The excitatory and inhibitory balance in neurons affects a number of processes, such as short-term and long-term memory, acquisition of experience, fear memory, response to stress and social behavior (By similarity). Acts as a regulator of dendritic spine development in olfactory bulb granule cells in a sensory-experience-dependent manner by regulating expression of MDM2 (By similarity). Efficient DNA binding requires dimerization with another bHLH protein, such as ARNT, ARNT2 or BMAL1 (PubMed:14701734). Can activate the CME (CNS midline enhancer) element (PubMed:14701734).

Cellular Location
Nucleus {ECO:0000250|UniProtKB:Q8BGD7, ECO:0000255|PROSITE-ProRule:PRU00981}

Tissue Location
Brain..

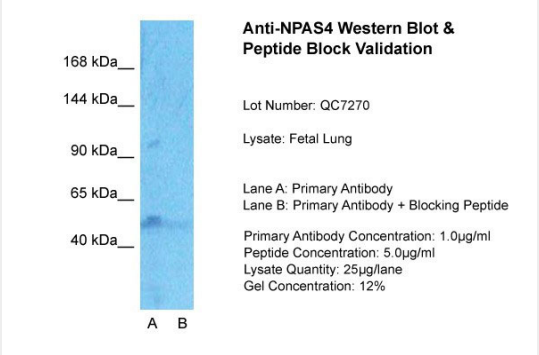
NPAS4 antibody - middle region - Protocols

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

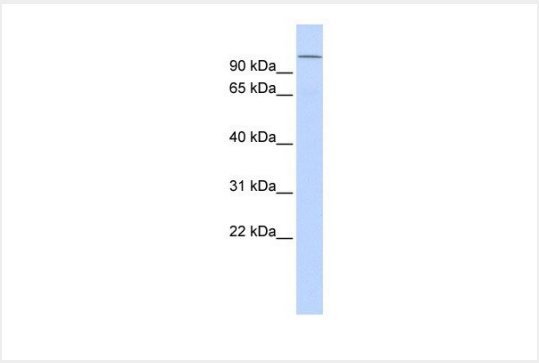
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

NPAS4 antibody - middle region - Images

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NPAS4 antibody - middle region (AI10066) in Fetal Lung cells using Western Blot
Host: Rabbit
Target Name:NPAS4
Sample Tissue:Fetal Lung
Lane A:Primary Antibody
Lane B:Primary Antibody + Blocking Peptide
Primary Antibody
Concentration:1µg/ml
Peptide Concentration: 5µg/ml
Lysate Quantity: 25ug/lane/Lane
Gel
Concentration: 0.12



NPAS4 antibody - middle region (AI10066) in Human Lung cells using Western Blot
WB Suggested Anti-NPAS4 Antibody Titration: 0.2-1 µg/ml
ELISA Titer: 1:312500
Positive Control: Human Lung

NPAS4 antibody - middle region - Background

This is a rabbit polyclonal antibody against NPAS4. It was validated on Western Blot using a cell lysate as a positive control. Abgent strives to provide antibodies covering each member of a whole protein family of your interest. We also use our best efforts to provide you antibodies recognize various epitopes of a target protein. For availability of antibody needed for your experiment, please inquire (sales@abgent.com).