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NPAS4 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP57475

Specification

NPAS4 Polyclonal Antibody - Product Information

Application	**IHC-P, IHC-F, IF, ICC, E**
Primary Accession	Q8IUM7
Reactivity	**Rat, Pig, Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**87117**

NPAS4 Polyclonal Antibody - Additional Information

Gene ID 266743

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 (HGNC:18983)

Dilution
IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A<br \>E~~N/A

Format
0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage
Store at -20 ℃ for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 ℃.

NPAS4 Polyclonal Antibody - 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 Polyclonal 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

NPAS4 Polyclonal Antibody - Images