

Datasheet for ABIN7161390
anti-NPAS4 antibody (AA 445-585)[Go to Product page](#)

3 Images

Overview

Quantity:	100 µg
Target:	NPAS4
Binding Specificity:	AA 445-585
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This NPAS4 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA

Product Details

Immunogen:	Recombinant Human Neuronal PAS domain-containing protein 4 protein (445-585AA)
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	>95%, Protein G purified

Target Details

Target:	NPAS4
Alternative Name:	NPAS4 (NPAS4 Products)
Background:	Background: 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

Target Details

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).

Aliases: bHLH PAS type transcription factor NXF antibody, bHLHe79 antibody, Class E basic helix-loop-helix protein 79 antibody, HLH-PAS transcription factor NXF antibody, Le PAS antibody, limbic enhanced PAS protein antibody, neuronal PAS domain protein 4 antibody, Neuronal PAS domain-containing protein 4 antibody, Neuronal PAS4 antibody, NPAS4 antibody, NPAS4_HUMAN antibody, NXF antibody, PAS domain-containing protein 10 antibody, PASD10 antibody

UniProt: [Q8IUM7](#)

Application Details

Application Notes: Recommended dilution: WB:1:500-1:5000, IHC:1:200-1:500,

Restrictions: For Research Use only

Handling

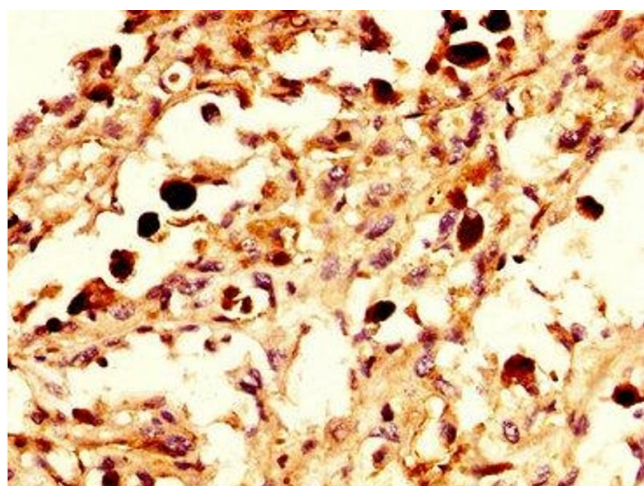
Format: Liquid

Buffer: Preservative: 0.03 % Proclin 300
Constituents: 50 % Glycerol, 0.01M PBS, pH 7.4

Handling

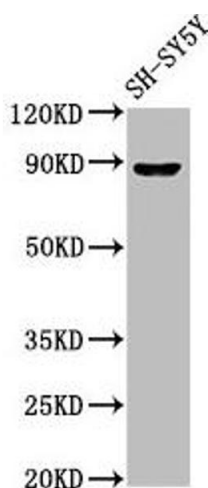
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



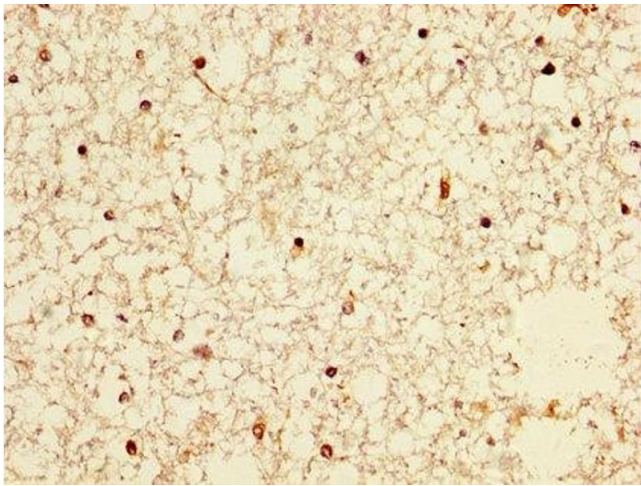
Immunohistochemistry

Image 1. IHC image of ABIN7161390 diluted at 1:300 and staining in paraffin-embedded human melanoma performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.



Western Blotting

Image 2. Western Blot Positive WB detected in: SH-SY5Y whole cell lysate All lanes: NPAS4 antibody at 7 µg/mL Secondary Goat polyclonal to rabbit IgG at 1/50000 dilution Predicted band size: 88, 26 kDa Observed band size: 88 kDa



Immunohistochemistry

Image 3. IHC image of ABIN7161390 diluted at 1:300 and staining in paraffin-embedded human brain tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.