Datasheet for ABIN7564338

NPAS4 Protein (AA 1-802) (His tag)

Go to Product page

Overview

Quantity:	1 mg
Target:	NPAS4
Protein Characteristics:	AA 1-802
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This NPAS4 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant Npas4 Protein expressed in mammalian cells.
Sequence:	MYRSTKGASK ARRDQINAEI RNLKELLPLA EADKVRLSYL HIMSLACIYT RKGVFFAGGT PLAGPTGLLS AQELEDIVAA LPGFLLVFTA EGKLLYLSES VSEHLGHSMV DLVAQGDSIY DIIDPADHLT VRQQLTMPSA LDADRLFRCR FNTSKSLRRQ SSGNKLVLIR GRFHAHPPGA YWAGNPVFTA FCAPLEPRPR PGPGPGPGPG PASLFLAMFQ SRHAKDLALL DVSESVLIYL GFERSELLCK SWYGLLHPED LAQASSQHYR LLAESGDIQA EMVVRLQAKH GGWTWIYCML YSEGPEGPFT ANNYPISDTE AWSLRQQLNS EDTQAAYVLG TPAVLPSFSE NVFSQEQCSN PLFTPSLGTP RSASFPRAPE LGVISTPEEL PQPSKELDFS YLPFPARPEP SLQADLSKDL VCTPPYTPHQ PGGCAFLFSL HEPFQTHLPP PSSSLQEQLT PSTVTFSEQL TPSSATFPDP LTSSLQGQLT ESSARSFEDQ LTPCTSSFPD QLLPSTATFP EPLGSPAHEQ LTPPSTAFQA HLNSPSQTFP EQLSPNPTKT YFAQEGCSFL YEKLPPSPSS PGNGDCTLLA LAQLRGPLSV DVPLVPEGLL TPEASPVKQS FFHYTEKEQN EIDRLIQQIS QLAQGVDRPF SAEAGTGGLE PLGGLEPLNP NLSLSGAGPP VLSLDLKPWK CQELDFLVDP DNLFLEETPV EDIFMDLSTP

Product Details

	DPNGEWGSGD PEAEVPGGTL SPCNNLSPED HSFLEDLATY ETAFETGVST FPYEGFADEL HQLQSQVQDS FHEDGSGGEP TF **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	NPAS4
Alternative Name:	Npas4 (NPAS4 Products)
Background:	Neuronal PAS domain-containing protein 4 (Neuronal PAS4) (HLH-PAS transcription factor NXF) (Limbic-enhanced PAS protein) (LE-PAS),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 (PubMed:18815592, PubMed:22194569, PubMed:23029555, PubMed:24201284, PubMed:24855953). Plays a key role in the structural and functional plasticity of neurons (PubMed:23172225). Acts as an early-response transcription factor in both excitatory and inhibitory neurons, where it induces distinct but

Target Details

	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 (PubMed:24201284, PubMed:24855953). 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 (PubMed:18815592, PubMed:22194569, PubMed:24201284). 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 (PubMed:24855953). 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 (PubMed:18815592, PubMed:22194569, PubMed:23029555, PubMed:24201284, PubMed:27238022). Acts as a regulator of dendritic spine development in olfactory bulb granule cells in a sensory-experience-dependent manner by regulating expression of MDM2 (PubMed:25088421). Efficient DNA binding requires dimerization with another bHLH protein, such as ARNT, ARNT2 or BMAL1 (PubMed:14701734, PubMed:15363889, PubMed:19284974). Can activate the CME (CNS midline enhancer) element (PubMed:14701734, PubMed:15363889). {ECO:0000269|PubMed:14701734, ECO:0000269|PubMed:15363889, ECO:0000269|PubMed:18815592, ECO:0000269|PubMed:22194569, ECO:0000269|PubMed:23029555, ECO:0000269|PubMed:23172225, ECO:0000269|PubMed:24201284, ECO:0000269|PubMed:24855953, ECO:0000269|PubMed:25088421, ECO:0000269|PubMed:27238022}.
Molecular Weight:	87.3 kDa
UniProt:	Q8BGD7

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid

Handling

Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months