10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Protein atonal homolog 8 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP54678

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q96SQ7
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	34644
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human HATH6/Protein atonal homolog 8
Epitope Specificity	231-321/321
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus.
SIMILARITY	Contains 1 basic helix-loop-helix (bHLH) domain.
SUBUNIT	Efficient DNA binding requires dimerization with another bHLH protein
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Putative transcription factor. May be implicated in specification and differentiation of neuronal cell lineages in the brain. May participate in kidney development and may be involved in podocyte differentiation.

Additional Information

Gene ID	84913
Other Names	Protein atonal homolog 8, Class A basic helix-loop-helix protein 21, bHLHa21, Helix-loop-helix protein hATH-6 {ECO:0000312|EMBL:AAO85773.1}, hATH6, ATOH8 (HGNC:24126), ATH6, BHLHA21
Target/Specificity	Expressed in lung, liver, kidney, heart and pancreas. Expressed in endothel of umbilical vessels.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C 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 °C.

Protein Information

Name	ATOH8 (HGNC:24126)
Synonyms	ATH6, BHLHA21
Function	Transcription factor that binds a palindromic (canonical) core consensus DNA sequence 5'-CANNTG- 3' known as an E-box element, possibly as a heterodimer with other bHLH proteins (PubMed:24236640). Regulates endothelial cell proliferation, migration and tube-like structures formation (PubMed:24463812). Modulates endothelial cell differentiation through NOS3 (PubMed:24463812). May be implicated in specification and differentiation of neuronal cell lineages in the brain (By similarity). May participate in kidney development and may be involved in podocyte differentiation (By similarity). During early embryonic development is involved in tissue-specific differentiation processes that are dependent on class II bHLH factors and namely modulates the differentiation program initiated by the pro-endocrine factor NEUROG3 (By similarity). During myogenesis, may play a role during the transition of myoblasts from the proliferative phase to the differentiation phase (By similarity). Positively regulates HAMP transcription in two ways, firstly by acting directly on the HAMP promoter via E-boxes binding and indirectly through increased phosphorylation of SMAD protein complex (PubMed:24236640). Repress NEUROG3-dependent gene activation in a gene-specific manner through at least two mechanisms; requires only either the sequestering of a general partner such as TCF3 through heterodimerization, either also requires binding of the bHLH domain to DNA via a basic motif (By similarity).
Cellular Location	Nucleus. Nucleus speckle. Cytoplasm {ECO:0000250|UniProtKB:Q99NA2}
Tissue Location	Expressed in lung, liver, kidney, heart and pancreas. Expressed in endothel of umbilical vessels