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DANRE shha Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # Azb10041a

Product Information

Application	WB, E
Primary Accession	Q92008
Reactivity	Zebrafish
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB46723
Calculated MW	46403

Additional Information

Gene ID	30269
Other Names	Sonic hedgehog protein A, SHHA, VHH-1, Sonic hedgehog protein A N-product, Sonic hedgehog protein A C-product, shha, shh, vhh1
Target/Specificity	This shha antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 151-162 amino acids from the Central region of DANRE shha.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	DANRE shha Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	shha
Synonyms	shh, vhh1
Function	[Sonic hedgehog protein]: Together with shhb/twhh shares a redundant function in posterior specification of the anterior otic regions of the ear during development (PubMed:12588855). In conjunction with shhb/twhh,

	required for correct pre-thalamic development and thalamic development during embryogenesis, via downstream regulation of differentiation factors dbx1a, dlx2a and ptch1 (PubMed:16452095). The C-terminal part of the sonic hedgehog protein precursor displays an autoproteolysis and a cholesterol transferase activity (By similarity). Both activities result in the cleavage of the full-length protein into two parts (ShhN and ShhC) followed by the covalent attachment of a cholesterol moiety to the C-terminal of the newly generated ShhN (By similarity). Both activities occur in the endoplasmic reticulum (By similarity). Once cleaved, ShhC is degraded in the endoplasmic reticulum (By similarity).
Cellular Location	[Sonic hedgehog protein]: Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q15465}. Golgi apparatus membrane {ECO:0000250|UniProtKB:Q15465}. Note=Co-localizes with HHAT in the ER and Golgi membrane. {ECO:0000250|UniProtKB:Q15465}
Tissue Location	Expressed in the ventral midline of the neural tube and brain. Also found in the notochord and in developing fin bud. In the developing brain, expression occurs in domains that include a discrete region in the floor of the diencephalon

Background

Intercellular signal essential for a variety of patterning events during development. Signal produced by the notochord that induces somite patterning, dorso-ventral patterning of the brain and early patterning of the developing eyes. Displays floor plate-inducing activity. Binds to the patched (PTC) receptor, which functions in association with smoothened (SMO), to activate the transcription of target genes. In the absence of SHH, PTC represses the constitutive signaling activity of SMO (By similarity).

References

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Ekker S.C.,et al.Curr. Biol. 5:944-955(1995).
Fietz M.J.,et al.Development Suppl. 120:43-51(1994).
Muller F.,et al.Development 126:2103-2116(1999).
Zardoya R.,et al.Proc. Natl. Acad. Sci. U.S.A. 93:13036-13041(1996).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.