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DHH Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19172c

Product Information

Application	WB, E
Primary Accession	O43323
Other Accession	Q61488, NP_066382.1
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB39505
Calculated MW	43577
Antigen Region	195-223

Additional Information

Gene ID	50846
Other Names	Desert hedgehog protein, DHH, HHG-3, Desert hedgehog protein N-product, Desert hedgehog protein C-product, DHH
Target/Specificity	This DHH antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 195-223 amino acids from the Central region of human DHH.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	DHH Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DHH {ECO:0000303|PubMed:33063110, ECO:0000312|HGNC:HGNC:2865}
Function	[Desert hedgehog protein]: Precursor of desert hedgehog, a morphogen that activates the smoothened signaling pathway, and which is essential for a

	variety of patterning events during development (By similarity). The C-terminal part of the precursor displays an autoproteolysis and a cholesterol transferase activity, resulting (1) in the cleavage of the full-length protein into two parts, desert hedgehog protein N-product and C-product and (2) covalent attachment of a cholesterol moiety to the C-terminus of the newly generated N-product (DHH-N) (By similarity). Both autoproteolysis and a cholesterol transferase activities occur in the endoplasmic reticulum (By similarity). Following additional lipidation, DHH-N acts as a morphogen, while the C-product is degraded in the endoplasmic reticulum (By similarity).
Cellular Location	[Desert 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}

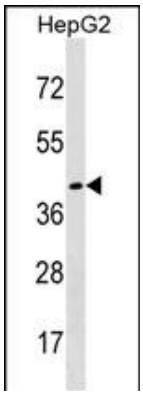
Background

This gene encodes a member of the hedgehog family. The hedgehog gene family encodes signaling molecules that play an important role in regulating morphogenesis. This protein is predicted to be made as a precursor that is autocatalytically cleaved; the N-terminal portion is soluble and contains the signalling activity while the C-terminal portion is involved in precursor processing. More importantly, the C-terminal product covalently attaches a cholesterol moiety to the N-terminal product, restricting the N-terminal product to the cell surface and preventing it from freely diffusing throughout the organism. Defects in this protein have been associated with partial gonadal dysgenesis (PGD) accompanied by minifascicular polyneuropathy. This protein may be involved in both male gonadal differentiation and perineurial development.

References

Chinchilla, P., et al. Cell Cycle 9(3):570-579(2010)
Bishop, B., et al. Nat. Struct. Mol. Biol. 16(7):698-703(2009)
Hegde, G.V., et al. Mol. Cancer Res. 6(12):1928-1936(2008)
Nakamura, M., et al. Fukuoka Igaku Zasshi 99(5):102-106(2008)
Canto, P., et al. Mol. Hum. Reprod. 11(11):833-836(2005)

Images



DHH Antibody (Center) (Cat. #AP19172c) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the DHH antibody detected the DHH protein (arrow).

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