Datasheet for ABIN969395

anti-Sonic Hedgehog antibody

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Overview

Quantity:	100 µL
Target:	Sonic Hedgehog (SHH)
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Sonic Hedgehog antibody is un-conjugated
Application:	ELISA

Product Details

Purpose:	SHH Antibody
Immunogen:	Purified recombinant fragment of human SHH expressed in E. Coli.
Clone:	8G3
Isotype:	IgG1
Purification:	Ascitic fluid

Target Details

Target:	Sonic Hedgehog (SHH)
Alternative Name:	SHH (SHH Products)
Background:	Description: This gene encodes a protein that is instrumental in patterning the early embryo. It has been implicated as the key inductive signal in patterning of the ventral neural tube, the

Target Details

	anterior-posterior limb axis, and the ventral somites. Of three human proteins showing sequence and functional similarity to the sonic hedgehog protein of Drosophila, this protein is the most similar. The protein is 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 developing embryo. Defects in this protein or in its signalling pathway are a cause of holoprosencephaly (HPE), a disorder in which the developing forebrain fails to correctly separate into right and left hemispheres. HPE is manifested by facial deformities. It is also thought that mutations in this gene or in its signalling pathway may be responsible for VACTERL syndrome, which is characterized by vertebral defects, anal atresia, tracheoesophageal fistula with esophageal atresia, radial and renal dysplasia, cardiac anomalies, and limb abnormalities. Additionally, mutations in a long range enhancer located approximately 1 megabase upstream of this gene disrupt limb patterning and can result in preaxial polydactyly. Aliases: TPT, HHG1, HLP3, HPE3, SMMCI, TPTPS, MCOPCB5, SHH
Molecular Weight:	49.6kDa
Gene ID:	6469
HGNC:	6469
UniProt:	Q15465
Pathways:	Hedgehog Signaling, Dopaminergic Neurogenesis, Regulation of Muscle Cell Differentiation, Tube Formation, Skeletal Muscle Fiber Development

Application Details

Application Notes:	ELISA: 1/10000
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Ascitic fluid containing 0.03 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which

Handling

	should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Publications

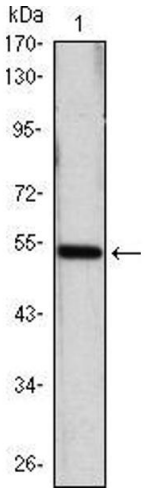
Product cited in:

Dia, Mejia: "Lunasin promotes apoptosis in human colon cancer cells by mitochondrial pathway activation and induction of nuclear clusterin expression." in: **Cancer letters**, Vol. 295, Issue 1, pp. 44-53, (2010) (PubMed).

Dierker, Dreier, Migone, Hamer, Grobe: "Heparan sulfate and transglutaminase activity are required for the formation of covalently cross-linked hedgehog oligomers." in: **The Journal of biological chemistry**, Vol. 284, Issue 47, pp. 32562-71, (2009) (PubMed).

Bailey, Mohr, Hollingsworth: "Sonic hedgehog paracrine signaling regulates metastasis and lymphangiogenesis in pancreatic cancer." in: **Oncogene**, Vol. 28, Issue 40, pp. 3513-25, (2009) (PubMed).

Images



Western Blotting

Image 1. Western blot analysis using SHH mAb against SHH(AA: 26-161)-hIgGFc transfected HEK293 cell lysate.