abcam

Product datasheet

Anti-Sonic Hedgehog antibody ab19897

★★★☆☆ **7 Abreviews**   **21 References**   2 图像

概述

产品名称	Anti-Sonic Hedgehog抗体
描述	兔多克隆抗体to Sonic Hedgehog
宿主	Rabbit
经测试应用	**适用于:** Sandwich ELISA, WB **不适用于:** IHC-Fr
种属反应性	**与反应:** Mouse **预测可用于:** Rat, Chicken, Cow, Human, Xenopus laevis, Zebrafish, a wide range of other species ⚠
免疫原	Synthetic peptide corresponding to Human Sonic Hedgehog aa 1-100 (N terminal) conjugated to keyhole limpet haemocyanin. (Peptide available as **ab21448**)
阳性对照	This antibody gave a positive signal in Mouse Recombinant Sonic Hedgehog protein.
常规说明	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.
	If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
存储溶液	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

纯度	Immunogen affinity purified
克隆	多克隆
同种型	IgG

应用

"应用说明"部分 下显示的仅为**推荐的起始稀释度**;实际**最佳的稀释度/浓度应由使用者**检定。

应用	Ab评论	说明
Sandwich ELISA		Use a concentration of 0.5 µg/ml. For sandwich ELISA, use this antibody as Detection at 0.5 µg/ml with **Mouse monoclonal [10H6] to Sonic Hedgehog (ab87382)** as Capture.
WB	★★★★☆ (2)	Use a concentration of 1 µg/ml. Detects a band of approximately 26 kDa (predicted molecular weight: 48 kDa).

应用说明	Is unsuitable for IHC-Fr.

靶标

功能	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. Also regulates another target, the gli oncogene. Intercellular signal essential for a variety of patterning events during development: signal produced by the notochord that induces ventral cell fate in the neural tube and somites, and the polarizing signal for patterning of the anterior-posterior axis of the developing limb bud. Displays both floor plate- and motor neuron-inducing activity. The threshold concentration of N-product required for motor neuron induction is 5-fold lower than that required for floor plate induction.
组织特异性	Expressed in fetal intestine, liver, lung, and kidney. Not expressed in adult tissues.
疾病相关	Defects in SHH are the cause of microphthalmia isolated with coloboma type 5 (MCOPCB5) [MIM:611638]. Microphthalmia is a clinically heterogeneous disorder of eye formation, ranging from small size of a single eye to complete bilateral absence of ocular tissues. Ocular abnormalities like opacities of the cornea and lens, scaring of the retina and choroid, cataract and other abnormalities like cataract may also be present. Ocular colobomas are a set of malformations resulting from abnormal morphogenesis of the optic cup and stalk, and the fusion of the fetal fissure (optic fissure). Defects in SHH are the cause of holoprosencephaly type 3 (HPE3) [MIM:142945]. Holoprosencephaly (HPE) [MIM:236100] is the most common structural anomaly of the brain, in which the developing forebrain fails to correctly separate into right and left hemispheres. Holoprosencephaly is genetically heterogeneous and associated with several distinct facies and phenotypic variability. The majority of HPE3 cases are apparently sporadic, although clear examples of autosomal dominant inheritance have been described. Interestingly, up to 30% of obligate carriers of HPE3 gene in autosomal dominant pedigrees are clinically unaffected. Defects in SHH are a cause of solitary median maxillary central incisor (SMMCI) [MIM:147250]. SMMCI is a rare dental anomaly characterized by the congenital absence of one maxillary central incisor.

Defects in SHH are the cause of triphalangeal thumb-polysyndactyly syndrome (TPTPS) [MIM:174500]. TPTPS is an autosomal dominant syndrome characterized by a wide spectrum of pre- and post-axial abnormalities due to altered SHH expression pattern during limb development. TPTPS mutations have been mapped to the 7q36 locus in the LMBR1 gene which contains in its intron 5 a long-range cis-regulatory element of SHH expression.

| 序列相似性	Belongs to the hedgehog family.
翻译后修饰	The C-terminal domain displays an autoproteolysis activity and a cholesterol transferase activity. Both activities result in the cleavage of the full-length protein and covalent attachment of a cholesterol moiety to the C-terminal of the newly generated N-terminal fragment (N-product). The N-product is the active species in both local and long-range signaling, whereas the C-product has no signaling activity. Cholesterylation is required for N-product targeting to lipid rafts and multimerization. N-palmitoylation of Cys-24 by HHAT is required for N-product multimerization and full activity.
细胞定位	Cell membrane. The N-product either remains associated with lipid rafts at the cell surface, or forms freely diffusible active multimers with its hydrophobic lipid-modified N- and C-termini buried inside and Secreted > extracellular space. The C-terminal peptide diffuses from the cell.

图片

Sandwich ELISA - Anti-Sonic Hedgehog antibody (ab19897)
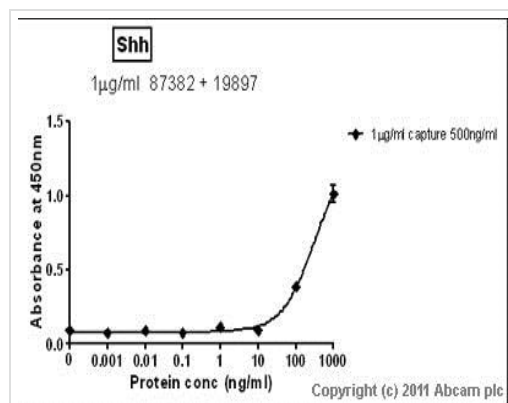
Standard Curve for Sonic Hedgehog (Analyte: **Sonic Hedgehog protein (Amino end active) (ab63216)**); dilution range 1pg/ml to 1µg/ml using Capture Antibody **Mouse monoclonal [10H6] to Sonic Hedgehog (ab87382)** at 1µg/ml and Detector Antibody **Rabbit polyclonal to Sonic Hedgehog (ab19897)** at 0.5µg/ml.

Western blot - Anti-Sonic Hedgehog antibody
(ab19897)
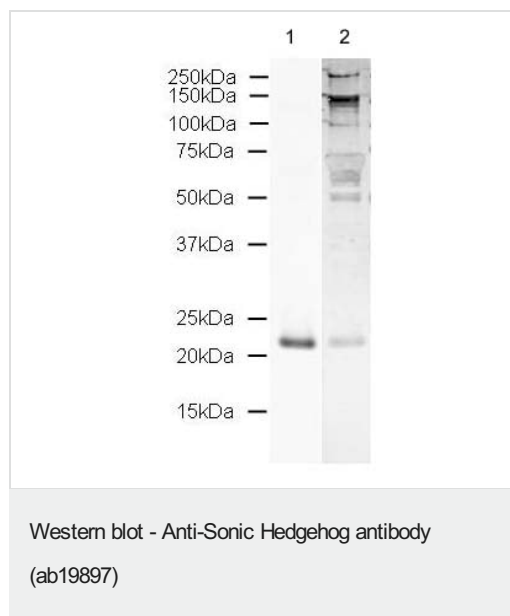
All lanes : Anti-Sonic Hedgehog antibody (ab19897) at 1 µg/ml

Lane 1 : 22 kDa fragment of Mouse recombinant Sonic Hedgehog protein

Lane 2 : 22 kDa fragment of Mouse recombinant Sonic Hedgehog protein with Human Sonic Hedgehog peptide (**ab21448**) at 1 µg/ml

Lysates/proteins at 1 µg per lane.

Predicted band size: 48 kDa
Observed band size: 22 kDa

ab19897 detects a 180 AA (22 kDa) recombinant fragment of mouse Sonic Hedgehog (lane 1). Binding of ab19897 to Sonic Hedgehog was reduced when blocking using the immunising peptide (lane 2).

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