Datasheet for ABIN6657599

anti-ZIC1 antibody (N-Term)

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Overview

Quantity:	100 µg
Target:	ZIC1
Binding Specificity:	N-Term
Reactivity:	Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ZIC1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Fluorescence Microscopy (FM)

Product Details

Purpose:	Zic-1 Antibody
Immunogen:	The whole rabbit serum used to produce this IgG fraction antibody was prepared by repeated immunizations with an 18 aa synthetic peptide from a region near the N-Terminus of mouse Zic-1. This domain is completely conserved in human ZIC-1.
Isotype:	IgG
Cross-Reactivity (Details):	This antibody is directed against Zic-1 from mouse.
Purification:	This is an IgG preparation of whole rabbit antiserum purified by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above.
Sterility:	Sterile filtered

Target Details

Target:	ZIC1
Alternative Name:	Zic-1 (ZIC1 Products)
Background:	Synonyms: rabbit anti-Zic-1 Antibody, Odd paired homolog Drosophila antibody, Zic 1 antibody, ZIC antibody, Zic family member 1 (odd-paired Drosophila homolog) antibody, Zic family member 1 antibody Background: Anti Zic-1 Antibody recognizes the product of the Zic-1 gene, that encodes a zinc finger protein which is expressed in the developing or matured central nervous system in a highly restricted manner. Zic-1 is expressed in granule cells that make synaptic contact with Purkinje cells. Clearly Zic-1 is a gene critical to cerebellar pattern formation. The expression of Zic genes is first detected at gastrulation and at neurulation, becomes restricted to the dorsal neural ectoderm and the dorsal paraxial mesoderm. Zic-2 and Zic-3 are highly similar genes, especially in their product's zinc finger motif and by comparison of their genomic organization in that they share common exon-intron boundaries and belong to the same gene family. By comparison in function, Zic-2 is essential for the formation of the brain and Zic-3 is important for right and left axis formation. The Zic-1 gene has been mapped to chromosome 9 in mouse. The 5' flanking region of the Zic-1 gene contains a region-specific enhancer determined to be essential in in vivo and in vitro deletion analysis. The temporal profile of mRNA expression differs for each of the Zic gene products. The Drosophila odd-paired gene is highly homologous to the Zic gene family. Gene Name: Zic1
Gene ID:	22771
UniProt:	P46684

Application Details

Application Notes:	ELISA_Dilution: 1:10,000 - 1:50,000 Immunohistochemistry_Dilution: 1:400 IF_Microscopy_Dilution: 1:400 Western_Blot_Dilution: 1:5,000 Other: User Optimized
Comment:	Suggested Applications: IF, Multiplex Anti Zic-1 Antibody has been tested by western blotting and for ELISA. Researchers should determine optimal titers for applications that are not stated below.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 Stabilizer: None Preservative: 0.01 % (w/v) Sodium Azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiry Date:	12 months

Publications

Product cited in:

Zhang, He, Liu, Zhang, Huang, Potter, Xu, Zhou, Zheng, Luo, Berry, Pribnow, Smith, Fuller, Jones, Fouladi, Drissi, Yang, Gustafson, Remke, Pomeroy, Girard, Olson, Morrissy, Vladoiu, Zhang, Tian, Xin, Taylor, Potter, Roussel, Weiss, Lu: "Single-Cell Transcriptomics in Medulloblastoma Reveals Tumor-Initiating Progenitors and Oncogenic Cascades during Tumorigenesis and Relapse." in: **Cancer cell**, Vol. 36, Issue 3, pp. 302-318.e7, (2020) (PubMed).

He, Yu, Lu, Wang, Wu, Zhao, Li, Zhou, Liu, Mu, Xin, Qiu, Lu: "Transcriptional Regulator ZEB2 Is Essential for Bergmann Glia Development." in: **The Journal of neuroscience : the official journal of the Society for Neuroscience**, Vol. 38, Issue 6, pp. 1575-1587, (2019) (PubMed).

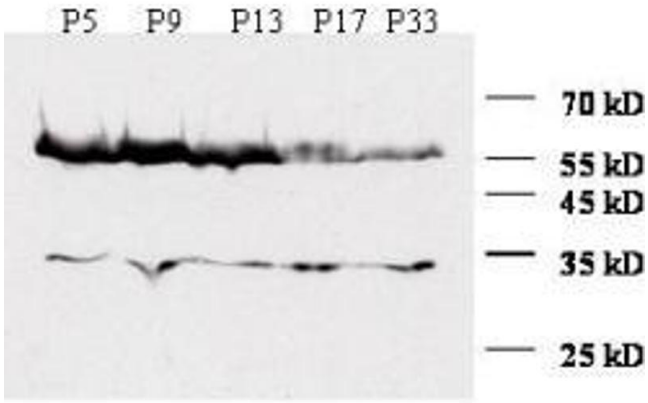
Sankar, Yellajoshyula, Zhang, Teets, Rockweiler, Kroll: "Gene regulatory networks in neural cell fate acquisition from genome-wide chromatin association of Geminin and Zic1." in: **Scientific reports**, Vol. 6, pp. 37412, (2018) (PubMed).

He, Zhang, Chen, Remke, Shih, Lu, Wang, Deng, Yu, Xia, Wu, Ramaswamy, Hu, Wang, Zhou, Burns, Kim, Kool, Pfister, Weinstein, Pomeroy, Gilbertson, Rubin, Hou, Wechsler-Reya, Taylor, Lu: "The G protein α subunit Gαs is a tumor suppressor in Sonic hedgehog-driven medulloblastoma." in: **Nature medicine**, Vol. 20, Issue 9, pp. 1035-42, (2014) (PubMed).

Publications

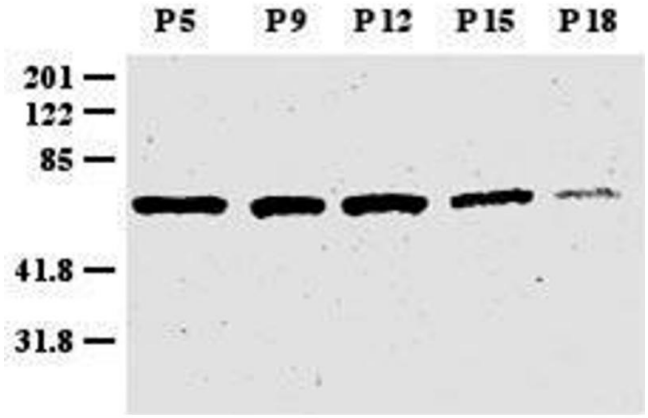
Zhao, Ayrault, Zindy, Kim, Roussel: "Post-transcriptional down-regulation of Atoh1/Math1 by bone morphogenic proteins suppresses medulloblastoma development." in: **Genes & development**, Vol. 22, Issue 6, pp. 722-7, (2008) (PubMed).

Images



Western Blotting

Image 1. Anti-Zic1 Antibody - Western Blot A similar time course experiment is shown using mouse cerebellum extracts at various time points. A 10% SDS-PAGE gel was used to separate proteins prior to transfer to nitrocellulose. The membrane was probed with a 1:5,000 dilution of the antibody. The lower minor band may be a breakdown product of Zic1 or it may represent cross reactivity of the detection antibody. HRP conjugated anti-Rabbit IgG (Chemicon) was used at a 1,000 dilution. Personnel communication, K.H. Herzog.



Western Blotting

Image 2. Anti-Zic1 Antibody - Western Blot. Western blot. Analysis of Zic1 in mouse cerebellum extract. Protein extracts were prepared from mouse cerebellum between postnatal day 5 (P5) and P18, as indicated above the lanes. ROCKLAND Immunochemical's anti-Zic1 antibody recognizes a single band in all extracts. The positions of the molecular weight markers (in kDa) in the gel are indicated on the left. Personnel communication, C. Kurschner.