Datasheet for ABIN6657911

anti-SIX3 antibody (Internal Region)

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Overview

Quantity:	25 µL
Target:	SIX3
Binding Specificity:	Internal Region
Reactivity:	Mouse
Host:	Guinea Pig
Clonality:	Polyclonal
Conjugate:	This SIX3 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunofluorescence (IF), Fluorescence Microscopy (FM), Dot Blot (DB)

Product Details

Purpose:	SIX3 Antibody
Immunogen:	This Protein A purified antibody was prepared from whole guinea pig serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region of mouse Six3 protein.
Isotype:	IgG
Cross-Reactivity (Details):	This antibody reacts with mouse Six3.
Purification:	This product was purified by Protein A chromatography from monospecific antiserum.
Sterility:	Sterile filtered

Target Details

Target:	SIX3
Alternative Name:	SIX3 (SIX3 Products)
Background:	Synonyms: guinea pig anti-SIX 3 antibody, Six3, Sine oculis homeobox homolog 3 Background: Six3 (also known as sine oculis homeobox homolog 3) is involved in the development of the visual system and forebrain. Six3 is a nuclear protein that is reported to exist in two forms by alternative splicing of the gene product. Six3 is first expressed at E6.5 of mouse embryonic development around the anterior border. At E8.5, expression is found over the anterior neural plate. At E9.5, it is in the diencephalic part of the ventral forebrain, optic vesicles, olfactory placodes and Rathke's pouch. In later stages, Six3 is present in hypothalamus, eyes and pituitary. Gene Name: SIX3
Gene ID:	20473, 59939908
UniProt:	Q62233
Pathways:	Protein targeting to Nucleus

Application Details

Application Notes:	ELISA_Dilution: 1:5,000 - 1:25,000 Immunohistochemistry_Dilution: 1:200 IF_Microscopy_Dilution: 1:200 - 1:1,000 Western_Blot_Dilution: 1:1000 Other: User Optimized
Comment:	Suggested Applications: Multiplex This Protein A purified antibody has been tested for use in Immunohistochemistry, immunofluorescence microscopy, dot blot, and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 37 kDa in size corresponding to Six3 by western blotting in the appropriate cell lysate or extract.
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

Handling

	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:	-20 °C
Storage Comment:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Expiry Date:	3 months

Publications

Product cited in:

Lipiec, Bem, Koziński, Chakraborty, Urban-Ciećko, Zajkowski, Dąbrowski, Szewczyk, Toval, Ferran, Nagalski, Wiśniewska: "TCF7L2 regulates postmitotic differentiation programmes and excitability patterns in the thalamus." in: **Development (Cambridge, England)**, Vol. 147, Issue 16 , (2021) (PubMed).

Grall, Gourain, Naïr, Martin, Birling, Freund, Duluc: "Severe head dysgenesis resulting from imbalance between anterior and posterior ontogenetic programs." in: **Cell death & disease**, Vol. 10, Issue 11, pp. 812, (2020) (PubMed).

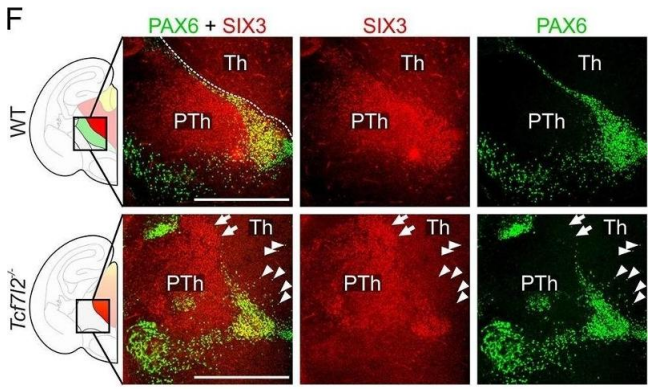
OBrien, Guo, Bahrami-Samani, Park, Hasso, Lee, Fang, Kim, Guo, Hong, Peterson, Lozanoff, Raviram, Ren, Fogelgren, Smith, Valouev, McMahon: "Transcriptional regulatory control of mammalian nephron progenitors revealed by multi-factor cistromic analysis and genetic studies." in: **PLoS genetics**, Vol. 14, Issue 1, pp. e1007181, (2018) (PubMed).

Madrigal, Moreno-Bravo, Martínez-López, Martínez, Puelles: "Mesencephalic origin of the rostral Substantia nigra pars reticulata." in: **Brain structure & function**, Vol. 221, Issue 3, pp. 1403-12, (2016) (PubMed).

Moldrich, Gobius, Pollak, Zhang, Ren, Brown, Mori, De Juan Romero, Britanova, Tarabykin, Richards: "Molecular regulation of the developing commissural plate." in: **The Journal of**

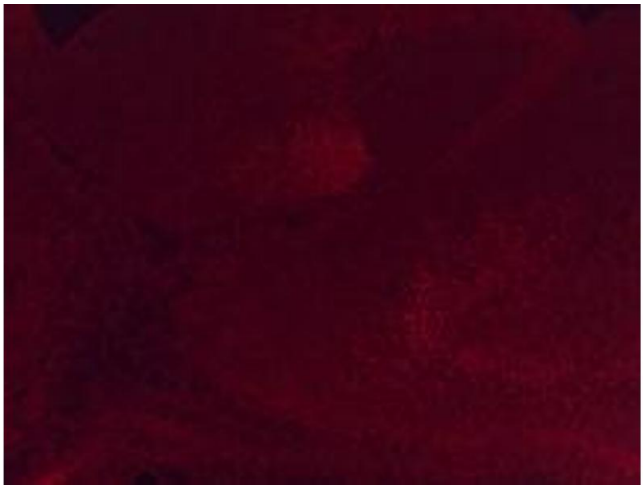
comparative neurology, Vol. 518, Issue 18, pp. 3645-61, (2010) (PubMed).

Images



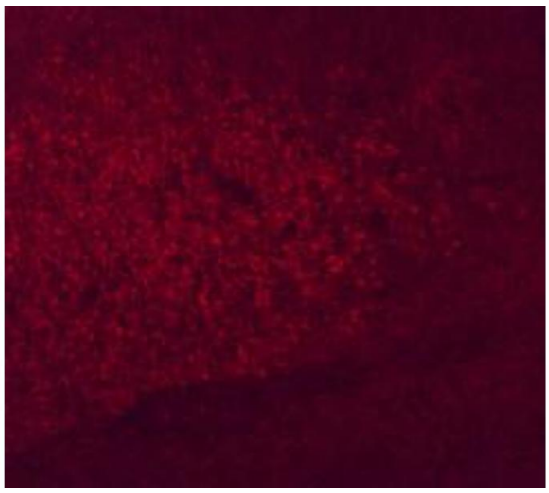
Immunofluorescence (Paraffin-embedded Sections)

Image 1. TCF7L2 controls the establishment of anatomical borders in the thalamus and habenula. (A) In situ hybridisation with a Tcf7l2 probe in consecutive E18.5 coronal brain sections. (B-D) In situ hybridisation with Gbx2 (B), Nkx2-2 and Sox14 (C) and Pax6 (D) probes in E18.5 coronal brain sections. Schematic above indicates areas shown in micrographs below. (E) Immunofluorescent co-staining of PAX6 and TCF7L2 (WT embryos) or β-galactosidase (Tcf7l2-/- embryos) in E18.5 coronal brain sections. White arrowheads show PAX6-positive cells invading the thalamus in Tcf7l2-/- embryos. (F) Immunofluorescent staining of PAX6 and SIX3 in E18.5 coronal brain sections. White arrows show SIX3-positive cells and white arrowheads show PAX6-positive cells which intermingle into the thalamic region. (G) Immunofluorescent co-staining of NKX2-2 and TCF7L2 (WT mice) or β-galactosidase (Tcf7l2-/- mice) in E18.5 coronal brain sections. White arrowheads show NKX2-2-positive cells from the rostral thalamus invading the thalamus in Tcf7l2-/- embryos. (H) Immunofluorescent staining of POU4F1 in coronal brain sections. White arrowheads show POU4F1-positive cells spreading into the thalamic area. Dotted lines demarcate different regions. Magnification of boxed areas are shown as indicated. Cx, cortex, Hb, habenula, lHb, lateral habenula, mHb, medial habenula, Hp, hippocampus, Pt, pretectum, PTh, prethalamus, rTh, rostral thalamus, Th, thalamus, Th-Hb, thalamo-habenular region. Scale bars: 0.5mm. - figure provided by CiteAb. Source: PMID32675279



Immunofluorescence

Image 2. Anti-Six3 Antibody - Immunofluorescence Microscopy Immunofluorescence microscopy using anti-Six3 antibody shows detection of Six3 in PFA-fixed embryonic mouse hypothalamus. Primary antibody was used at 1:250 dilution. Personal Communication, Miriam Dillard, St. Jude Children's Research Hospital, Memphis, TN.



Immunofluorescence

Image 3. Anti-Six3 Antibody - Immunofluorescence Microscopy Immunofluorescence microscopy using Anti-Six3 antibody shows detection of Six3 in PFA-fixed embryonic mouse prethalamus. Primary antibody was used at 1:250 dilution. Personal Communication, Miriam Dillard, St. Jude Children's Research Hospital, Memphis, TN.

Please check the product details page for more images. Overall 5 images are available for ABIN6657911.