Product datasheet

Anti-PAX6 antibody [AD2.38] ab78545

10 Abreviews 44 References 7 图像

概述

产品名称	Anti-PAX6抗体[AD2.38]
描述	**小鼠单克隆抗体**[AD2.38] to PAX6
宿主	Mouse
经测试应用	**适用于:** IHC-Fr, ICC/IF, IHC-P **不适用于:** sELISA or WB
种属反应性	**与反应:** Mouse, Rat, Human **预测可用于:** Chicken
免疫原	Recombinant fragment corresponding to Human PAX6 aa 1-250 (N terminal).
阳性对照	IHC-P: FFPE Human pancreas normal, Rat retina. IHC-Fr: Human pancreas tissue sections. ICC/IF: Mouse neurons/glia DIV1.
常规说明	This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact **orders@abcam.com**. 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. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
存储溶液	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS
纯度	Protein G purified
克隆	单克隆

克隆编号	AD2.38
同种型	IgG1

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab78545于以下的经测试应用**

"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
IHC-Fr	★★★★☆ (5)	Use at an assay dependent concentration.
ICC/IF	★★★★☆ (2)	Use a concentration of 5 µg/ml.
IHC-P	★★★★☆ (1)	Use a concentration of 10 - 20 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

应用说明 Is unsuitable for sELISA or WB.

靶标

功能 Transcription factor with important functions in the development of the eye, nose, central nervous system and pancreas. Required for the differentiation of pancreatic islet alpha cells (By similarity). Competes with PAX4 in binding to a common element in the glucagon, insulin and somatostatin promoters. Regulates specification of the ventral neuron subtypes by establishing the correct progenitor domains (By similarity). Isoform 5a appears to function as a molecular switch that specifies target genes.

组织特异性 Fetal eye, brain, spinal cord and olfactory epithelium. Isoform 5a is less abundant than the PAX6 shorter form.

疾病相关 Defects in PAX6 are the cause of aniridia (AN) [MIM:106210]. A congenital, bilateral, panocular disorder characterized by complete absence of the iris or extreme iris hypoplasia. Aniridia is not just an isolated defect in iris development but it is associated with macular and optic nerve hypoplasia, cataract, corneal changes, nystagmus. Visual acuity is generally low but is unrelated to the degree of iris hypoplasia. Glaucoma is a secondary problem causing additional visual loss over time.
Defects in PAX6 are a cause of Peters anomaly (PAN) [MIM:604229]. Peters anomaly consists of a central corneal leukoma, absence of the posterior corneal stroma and Descemet membrane, and a variable degree of iris and lenticular attachments to the central aspect of the posterior cornea.
Defects in PAX6 are a cause of foveal hypoplasia (FOVHYP) [MIM:136520]. Foveal hypoplasia can be isolated or associated with presenile cataract. Inheritance is autosomal dominant.
Defects in PAX6 are a cause of keratitis hereditary (KERH) [MIM:148190]. An ocular disorder characterized by corneal opacification, recurrent stromal keratitis and vascularization.
Defects in PAX6 are a cause of coloboma ocular (COLO) [MIM:120200]; also known as uveoretinal coloboma or coloboma of iris, choroid and retina. 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). Severe colobomatous malformations may cause as much as 10% of the childhood blindness. The clinical presentation of ocular coloboma is variable. Some

individuals may present with minimal defects in the anterior iris leaf without other ocular defects. More complex malformations create a combination of iris, uveoretinal and/or optic nerve defects without or with microphthalmia or even anophthalmia.
Defects in PAX6 are a cause of coloboma of optic nerve (COLON) [MIM:120430].
Defects in PAX6 are a cause of bilateral optic nerve hypoplasia (BONH) [MIM:165550]; also known as bilateral optic nerve aplasia. A congenital anomaly in which the optic disc appears abnormally small. It may be an isolated finding or part of a spectrum of anatomic and functional abnormalities that includes partial or complete agenesis of the septum pellucidum, other midline brain defects, cerebral anomalies, pituitary dysfunction, and structural abnormalities of the pituitary.
Defects in PAX6 are a cause of aniridia cerebellar ataxia and mental deficiency (ACAMD) [MIM:206700]; also known as Gillespie syndrome. A rare condition consisting of partial rudimentary iris, cerebellar impairment of the ability to perform coordinated voluntary movements, and mental retardation.

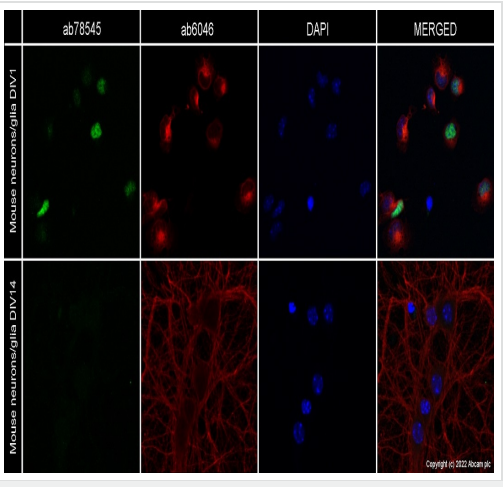
序列相似性 Belongs to the paired homeobox family.
Contains 1 homeobox DNA-binding domain.
Contains 1 paired domain.

发展阶段 Expressed in the developing eye and brain.

翻译后修饰 Ubiquitinated by TRIM11, leading to ubiquitination and proteasomal degradation.

细胞定位 Nucleus.

图片



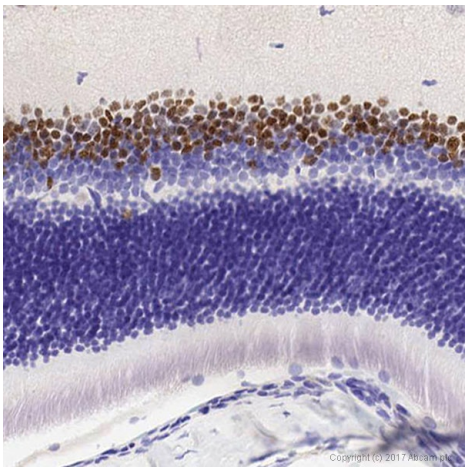
Immunocytochemistry/ Immunofluorescence - Anti-PAX6 antibody [AD2.38] (ab78545)

Ab78545 staining Pax6 in primary mouse neurons/glia, DIV1 (top row) and DIV14 (bottom row) both prepared from E18 mouse hippocampal brain area (obtained from Transnetyx Tissue by BrainBits, LLC, cat.no. C57EHP). The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% PBS-Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab78545 at 5 µg/ml and **ab6046**, rabbit polyclonal to beta Tubulin, at 1/1000 dilution. Cells were then incubated with with **ab150117**, Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (shown in green) and **ab150084**, Goat Anti-Rabbit IgG H&L (Alexa Fluor® 594) preadsorbed at 1/1000 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

A subset of cells showed staining in the nucleus at DIV1 (likely neuroprogenitor cells), while differentiated neurons (DIV14) where Pax6 negative.

The antibody was not suitable to detect Pax6 in cells fixed with 100% methanol (5 min).

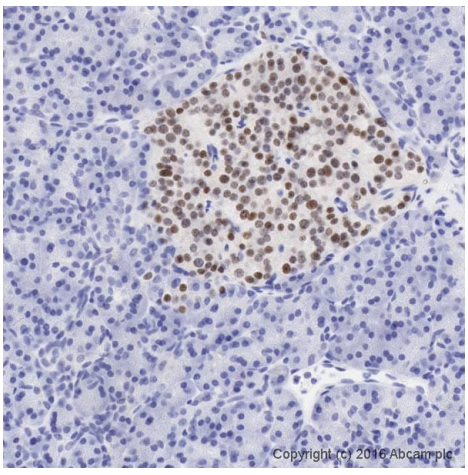
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PAX6 antibody [AD2.38] (ab78545)

IHC image of Pax6 staining in a formalin fixed, paraffin embedded normal rat retina tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab78545, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

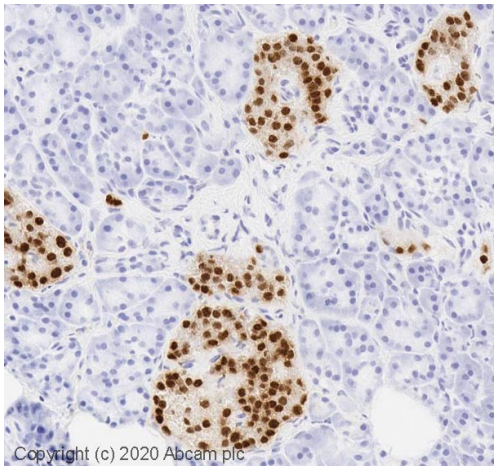


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PAX6 antibody [AD2.38] (ab78545)

IHC image of PAX6 staining in a formalin fixed, paraffin embedded normal human pancreas tissue section*performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab78545, 20µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

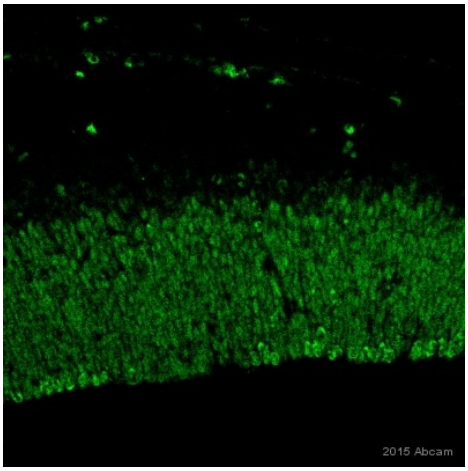
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre



Immunohistochemistry (Frozen sections) - Anti-PAX6 antibody [AD2.38] (ab78545)

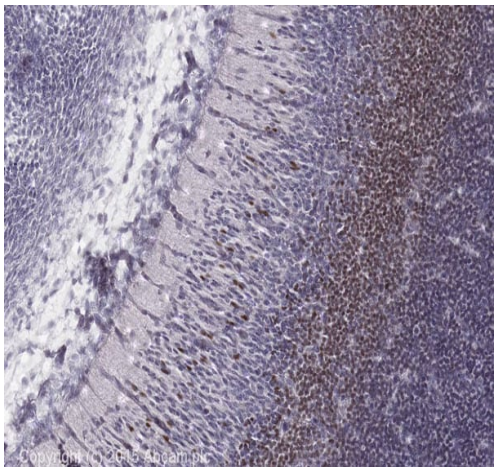
IHC image of PAX6 staining in a section of frozen normal human pancreas performed on a Leica BOND™ system using the standard protocol. The section was fixed in 10% paraformaldehyde (10 min) prior to staining. The section was incubated with ab78545, 1/1000 dilution, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunohistochemistry (Frozen sections) - Anti-PAX6 antibody [AD2.38] (ab78545)

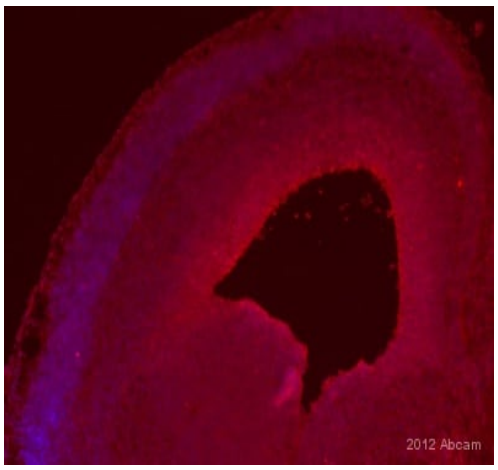
Image is courtesy of an AbReview submitted by Dr Bhavin Shah.

Immunohistochemical analysis of PFA-fixed frozen murine embryonic brain coronal sections, labelling PAX6 with ab78545 at a dilution of 1/100 incubated for 8 hours at 4°C in blocking buffer diluent. Permeabilization was with Triton X-100 and blocking was with 1% serum for 1 hour. Heat mediated antigen retrival was with 10mM sodium citrate buffer pH6.0 for 10 minutes at 650W in a microwave. The secondary was a goat Alexa Fluor® 488 at 1/700.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PAX6 antibody [AD2.38] (ab78545)

IHC image of PAX6 staining in mouse e14 foetus formalin fixed paraffin embedded tissue section, with the use of Mouse on Mouse Polymer IHC Kit (Ab127055). The section was pre-treated using pressure cooker heat mediated antigen retrieval with sodium citrate buffer (pH6) for 30mins. The section was incubated with ab78545, 10µg/ml overnight at +4°C. The Mouse on Mouse HRP Polymer was incubated for 15 minutes at room temperature. The section was counterstained with haematoxylin and mounted with DPX.



Immunohistochemistry (Frozen sections) - Anti-PAX6 antibody [AD2.38] (ab78545)

This image is courtesy of an anonymous Abreview.

Immunohistochemical analysis of mouse brain tissue, staining PAX6 with ab78545.

Tissue was fixed with paraformaldehyde and blocked with 10% serum for 1 hour at room temperature. Samples were incubated with primary antibody (1/100 in PBST) for 12 hours at 4°C. An AlexaFluor®568-conjugated goat anti-mouse polyclonal IgG (1/1000) was used as the secondary antibody.

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