For Research Use Only

PAX6 Polyclonal antibody

Catalog Number:12323-1-AP Featured Product 53 Publications

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Basic Information

Catalog Number:
12323-1-AP

Size:
900 μg/ml

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG2984

GenBank Accession Number:
BC011953

GeneID (NCBI):
5080

UNIPROT ID:
P26367

Full Name:
paired box 6

Calculated MW:
47 kDa

Observed MW:
47 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:500-1:3000
IHC 1:500-1:2000

Applications

Tested Applications:
FC, IF, IHC, WB, ELISA

Cited Applications:
WB,IHC,IF

Species Specificity:
human, mouse, rat

Cited Species:
human, rat, mouse

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : Y79 cells, mouse embryo tissue, human stomach tissue, rat brain tissue

IHC : mouse brain tissue, mouse eye tissue, human retinoblastoma tissue, mouse embryo tissue

Background Information

PAX6, a paired domain and homeodomain-containing transcription factor. Interaction with TRIM11 leads to ubiquitination of PAX6 and its proteasomal degradation. PAX6 is one of the earliest genes expressed in the eye field and considered a master control gene for retinal and eye development. PAX6 also regulates the development of the olfactory, central nervous systems, pituitary, and pancreas. PAX6 mutations can cause complex ocular disorders such as aniridia and Peter's anomaly.

Notable Publications

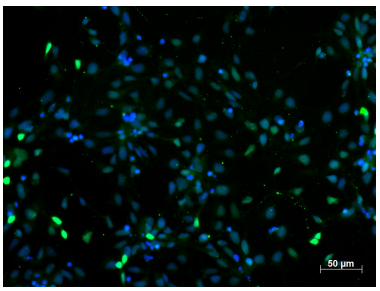
Author	Pubmed ID	Journal	Application
Xin Wen	36249018	Front Oncol	WB
Xi Gu	36074953	ACS Chem Neurosci	IF
Philip G Zaworski	36058293	Anal Biochem	WB

Storage

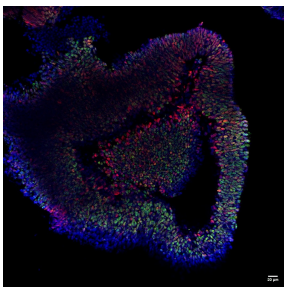
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

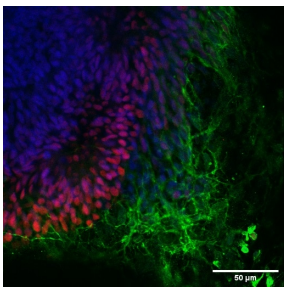
Selected Validation Data



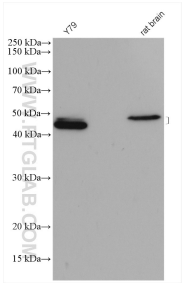
Immunofluorescent staining of PAX6 (12323-1-AP, 1:250 dilution) with 4% PFA fixed control human induced pluripotent stem cells (hiPSC) derived neuronal precursor cells (NPCs). (Green: PAX6; Blue: DAPI). Provided by BioTalentum Ltd., Hungary.



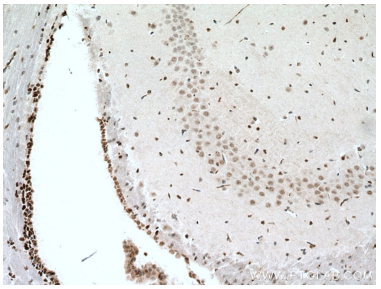
Retinal organoids (day 30) generated from human induced pluripotent stem cells (iPSCs) and fixed with 4% PFA. Stained for PAX6 with 12323-1-AP at 1:600 (green), and SOX2 with 11064-1-AP at 1:200 (red), Nuclear stain DAPI (blue). Scale bar = 20 µm. Data generated by Alessandro Bellapianta at Johannes Kepler Universitat, Austria.



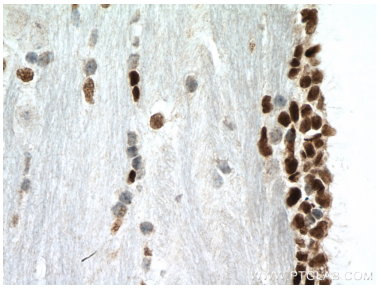
Retinal organoids (day 30) generated from human induced pluripotent stem cells (iPSCs) and fixed with 4% PFA. Stained for Tubulin beta 3/TUJ1 using 66375-1-Ig at 1:500 dilution (green) and PAX6 (12323-1-AP) at 1:500. Nuclear stain DAPI (blue). Scale bar = 50 µm. Data generated by Alessandro Bellapianta at Johannes Kepler Universitat, Austria.



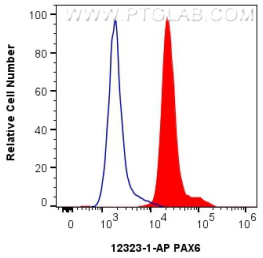
Various lysates were subjected to SDS PAGE followed by western blot with 12323-1-AP (PAX6 antibody) at dilution of 1:1500 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 12323-1-AP (PAX6 antibody) at dilution of 1:1000 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 12323-1-AP (PAX6 antibody) at dilution of 1:1000 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1x10^6 SH-SY5Y cells were intracellularly stained with 0.4 ug Anti-Human PAX6 (12323-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Isotype Control. Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).