

For Research Use Only

# PAX6 Polyclonal antibody

Catalog Number:12323-1-AP

Featured Product

69 Publications



## Basic Information

**Catalog Number:**

12323-1-AP

**Size:**

150ul , Concentration: 900 ug/ml by Nanodrop;

**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 1:1000-1:4000

IF-P 1:50-1:500

## Applications

**Tested Applications:**

WB, IHC, IF, IF-P, FC (Intra), ELISA

**Cited Applications:**

WB, IHC, IF

**Species Specificity:**

human, mouse, rat

**Cited Species:**

human, mouse, rat, monkey, zebrafish

**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 :** rat eye tissue, mouse embryo tissue, mouse brain tissue, mouse eye tissue, human retinoblastoma tissue, mouse cerebellum tissue

**IF-P :** mouse eye tissue, rat eye 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, pH7.3

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

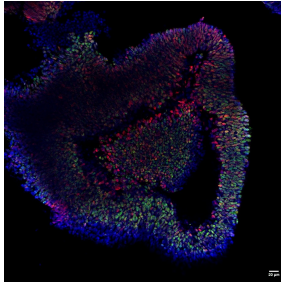
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

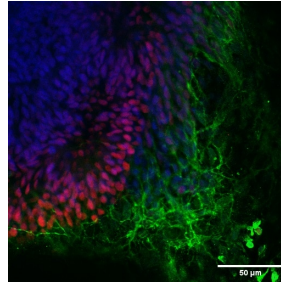
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

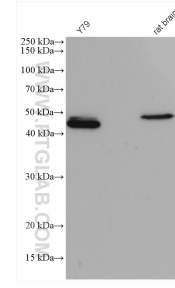
## Selected Validation Data



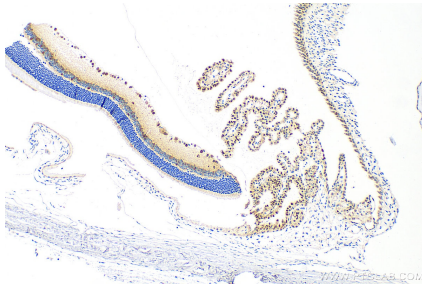
Retinal organoids (day 30) generated from human induced pluripotent stem cells (iPSCs) and fixed with 4% PFA. Stained for PAX6 with 12323-1-AP at 1:600 (green), and SOX2 with 11064-1-AP at 1:200 (red), Nuclear stain DAPI (blue). Scale bar = 20 μm. Data generated by Alessandro Bellapianta at Johannes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



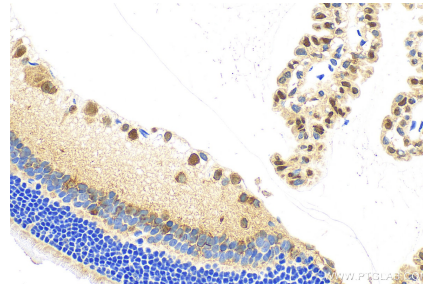
Retinal organoids (day 30) generated from human induced pluripotent stem cells (iPSCs) and fixed with 4% PFA. Stained for Tubulin beta 3/TUJ1 using 66375-1-Ig at 1:500 dilution (green) and PAX6 (12323-1-AP) at 1:500. Nuclear stain DAPI (blue). Scale bar = 50 μm. Data generated by Alessandro Bellapianta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



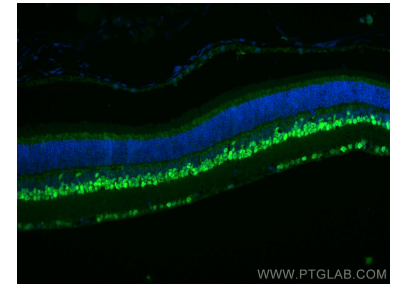
Various lysates were subjected to SDS PAGE followed by western blot with 12323-1-AP (PAX6 antibody) at dilution of 1:1500 incubated at room temperature for 1.5 hours.



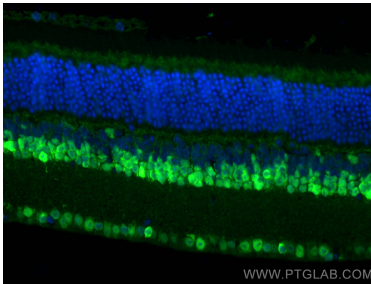
Immunohistochemical analysis of paraffin-embedded rat eye tissue slide using 12323-1-AP (PAX6 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



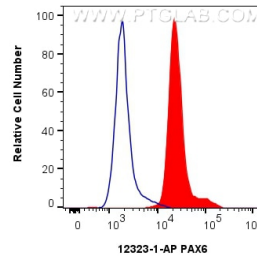
Immunohistochemical analysis of paraffin-embedded rat eye tissue slide using 12323-1-AP (PAX6 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse eye tissue using PAX6 antibody (12323-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse eye tissue using PAX6 antibody (12323-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



$1 \times 10^6$  SH-SY5Y cells were intracellularly stained with 0.4 μg 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 μg Isotype Control. Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).