

**Goat Anti-PAX6 (internal) Antibody**  
Peptide-affinity purified goat antibody  
Catalog # AF1793a

### Specification

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#### Goat Anti-PAX6 (internal) Antibody - Product Information

Application	WB, FC
Primary Accession	<a href="#">P26367</a>
Other Accession	<a href="#">NP_001595</a> , <a href="#">5080</a> , <a href="#">18508 (mouse)</a> , <a href="#">25509 (rat)</a>
Reactivity	Mouse
Predicted	Human, Rat
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	46683

#### Goat Anti-PAX6 (internal) Antibody - Additional Information

**Gene ID** 5080

#### Other Names

Paired box protein Pax-6, Aniridia type II protein, Oculorhombin, PAX6, AN2

#### Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### Precautions

Goat Anti-PAX6 (internal) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

#### Goat Anti-PAX6 (internal) Antibody - Protein Information

**Name** PAX6

**Synonyms** AN2

#### Function

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). Acts as a transcriptional repressor of NFATC1- mediated gene expression (By similarity).

#### Cellular Location

Nucleus {ECO:0000250|UniProtKB:P63015}. [Isoform 5a]: Nucleus {ECO:0000250|UniProtKB:P63016}

#### Tissue Location

[Isoform 1]: Expressed in lymphoblasts.

### Goat Anti-PAX6 (internal) Antibody - Protocols

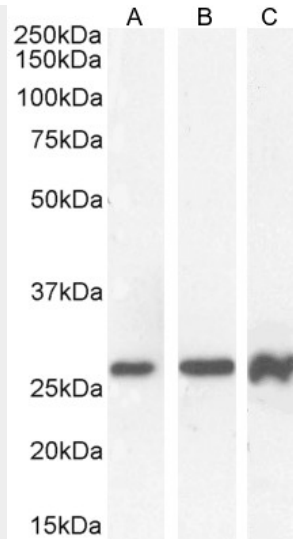
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Goat Anti-PAX6 (internal) Antibody - Images



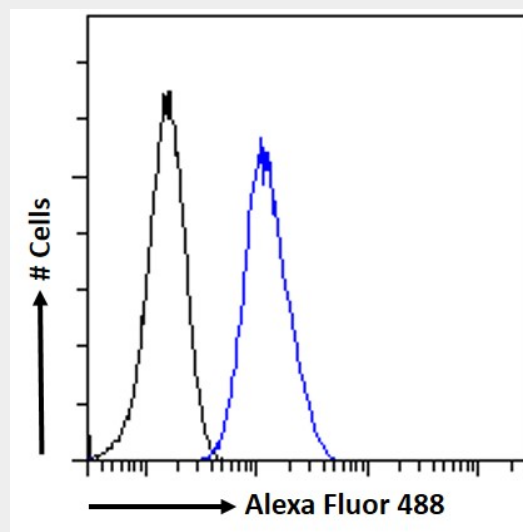
AF1793a (0.5 µg/ml) staining of Mouse Eye lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



EB07772 (0.3 $\mu$ g/ml) staining of U251 (A), (0.03 $\mu$ g/ml) nuclear K562 (B) and (1 $\mu$ g/ml) nuclear HeLa (C) cell lysate (35 $\mu$ g protein in RIPA buffer). Detected by chemiluminescence.



EB07772 (0.5 $\mu$ g/ml) staining of RAW264.7 cell lysate (35 $\mu$ g protein in RIPA buffer). Detected by chemiluminescence.



EB07772 Flow cytometric analysis of paraformaldehyde fixed U251 cells (blue line), permeabilized with 0.5% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (1ug/ml). IgG control: Unimmunized goat IgG (black line) followed by Alexa Fluor 488 secondary antibody.

### **Goat Anti-PAX6 (internal) Antibody - Background**

This gene encodes paired box gene 6, one of many human homologs of the *Drosophila melanogaster* gene *prd*. In addition to the hallmark feature of this gene family, a conserved paired box domain, the encoded protein also contains a homeo box domain. Both domains are known to bind DNA, and function as regulators of gene transcription. This gene is expressed in the developing nervous system, and in developing eyes. Mutations in this gene are known to cause ocular disorders such as aniridia and Peter's anomaly. Alternatively spliced transcript variants encoding either the same or different isoform have been found for this gene.

### **Goat Anti-PAX6 (internal) Antibody - References**

Molecular genetic and immunophenotypical analysis of Pax6 transcription factor and neural differentiation markers in human fetal neocortex and retina in vivo and in vitro. Verdiev BI, et al. *Bull Exp Biol Med*, 2009 Oct. PMID 20396773.

Personalized smoking cessation: interactions between nicotine dose, dependence and quit-success genotype score. Rose JE, et al. *Mol Med*, 2010 Jul-Aug. PMID 20379614.

Candidate gene study to investigate the genetic determinants of normal variation in central corneal thickness. Dimasi DP, et al. *Mol Vis*, 2010 Mar 31. PMID 20360993.

Isoform- and dose-sensitive feedback interactions between paired box 6 gene and delta-catenin in cell differentiation and death. Zhang J, et al. *Exp Cell Res*, 2010 Apr 1. PMID 20074565.

Malformations of the brain in two fetuses with a compound heterozygosity for two PAX6 mutations. Schmidt-Sidor B, et al. *Folia Neuropathol*, 2009. PMID 20054790.