

## PAX6 Rabbit Monoclonal Antibody

### Catalog #: EAB21807

Host/Isotype	Clonality	Applications	MW (kDa)	Reactivity
Rabbit IgG	Monoclonal	WB, IHC-P, FC	47	Human, Mouse, Rat

### Applications Dilutions

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<b>WB</b> (Western Blotting)	1:500-2000
<b>IHC-P</b> (Immunohistochemistry-Paraffin)	1:50-200
<b>FC</b> (Flow Cytometry)	1:10-100

### Product Information

<b>Conjugate</b>	Unconjugate
<b>Specificity</b>	PAX6 Rabbit Monoclonal Antibody detects endogenous levels of PAX6 protein.
<b>Purification</b>	Affinity purification
<b>Concentration</b>	1mg/ml
<b>Format</b>	Liquid
<b>Formulation</b>	In PBS, pH 7.4, Containing 0.02% sodium azide, 0.5% BSA and 50% Glycerol
<b>Shipping</b>	Gel Pack
<b>Storage</b>	Store at -20°C least 1 year from the date of shipment. Avoid repeated freeze/thaw cycles. Aliquots may be stored at +4°C for 1-2 weeks
<b>UniProt ID</b>	<a href="#">P26367</a>
<b>Entrez-Gene ID</b>	<a href="#">5080</a>

### Product Description

This gene encodes paired box protein Pax-6, one of many human homologs of the *Drosophila melanogaster* gene *prd*. In addition to a conserved paired box domain, a hallmark feature of this gene family, the encoded protein also contains a homeobox domain. Both domains are known to bind DNA and function as regulators of gene transcription. Activity of this protein is key in the development of neural tissues, particularly the eye. This gene is regulated by multiple enhancers located up to hundreds of kilobases distant from this locus. Mutations in this gene or in the enhancer regions can cause ocular disorders such as aniridia and Peter's anomaly. Use of alternate promoters and alternative splicing results in multiple transcript variants encoding different isoforms. Interestingly, inclusion of a particular alternate coding exon has been shown to increase the length of the paired box domain and alter its DNA binding specificity. Consequently, isoforms that carry the shorter paired box domain regulate a different set of genes compared to the isoforms carrying the longer paired box domain.

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