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PAX6 (Stem Cell Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone PAX6/1166]
Catalog # AH12033

Product Information

Application	IHC, IF, FC
Primary Accession	P26367
Other Accession	5080, 611376
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	PAX6/1166
Calculated MW	46683

Additional Information

Gene ID	5080
Other Names	Paired box protein Pax-6, Aniridia type II protein, Oculorhombin, PAX6, AN2
Application Note	IHC~~1:100~500 IF~~1:50~200 FC~~1:10~50
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	PAX6 (Stem Cell Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

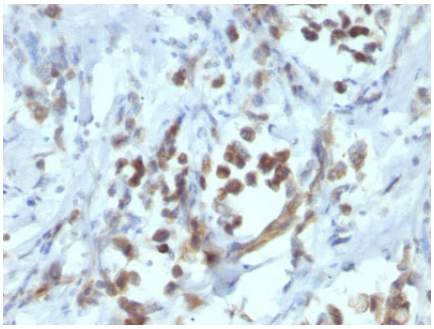
Protein Information

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.

Background

Pax genes contain paired domains with strong homology to genes in Drosophila, which are involved in programming early development. Lesions in the Pax-6 gene account for most cases of aniridia, a congenital malformation of the eye, chiefly characterized by iris hypoplasia, which can cause blindness. Pax-6 is involved in other anterior segment malformations besides aniridia, such as Peters anomaly, a major error in the embryonic development of the eye with corneal clouding with variable iridolenticulocorneal adhesions. The Pax-6 gene encodes a transcriptional regulator that recognizes target genes through its paired-type DNA-binding domain. The paired domain is composed of two distinct DNA-binding subdomains, the amino-terminal subdomain and the carboxy-terminal subdomain, which bind respective consensus DNA sequences. The human Pax-6 gene produces two alternatively spliced isoforms that have the distinct structure of the paired domain.

Images



Formalin-fixed, paraffin-embedded human Gastric Carcinoma stained with PAX6 Monoclonal Antibody (PAX6/1166).