

**PAX6 (Stem Cell Marker) Antibody - With BSA and Azide**  
**Mouse Monoclonal Antibody [Clone SPM612 ]**  
**Catalog # AH12036**

**Specification**

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

Application	,2,3,4,
Primary Accession	<a href="#">P26367</a>
Other Accession	<a href="#">5080</a> , <a href="#">611376</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Calculated MW	47kDa KDa

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

**Gene ID** 5080

**Other Names**

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

**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.

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

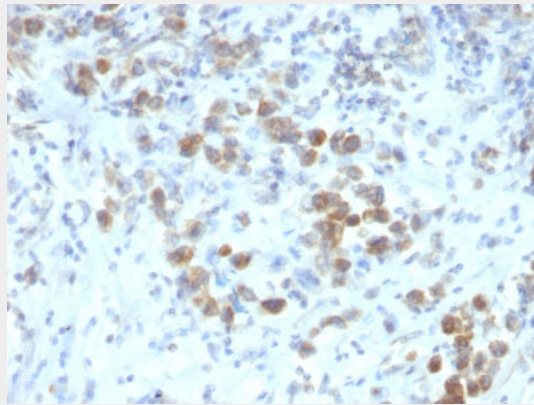
[Isoform 1]: Expressed in lymphoblasts.

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

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



Formalin-fixed, paraffin-embedded human Gastric Carcinoma stained with PAX6 Monoclonal Antibody (SPM612).

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