**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 accounts 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.

**CHROMOSOMAL LOCATION**

Genetic locus: PAX6 (human) mapping to 11p13; Pax6 (mouse) mapping to 2 E3.

**SOURCE**

Pax-6 (AD2.35) is a mouse monoclonal antibody raised against amino acids 1-206 mapping at the N-terminus of Pax-6 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2a in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

Pax-6 (AD2.35) is recommended for detection of Pax-6 of mouse, rat, human and avian origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Pax-6 siRNA (h): sc-36195, Pax-6 siRNA (m): sc-36196, Pax-6 shRNA Plasmid (h): sc-36195-SH, Pax-6 shRNA Plasmid (m): sc-36196-SH, Pax-6 shRNA (h) Lentiviral Particles: sc-36195-V, Pax-6 shRNA (m) Lentiviral Particles: sc-36196-V.

Molecular Weight of Pax-6: 47 kDa.

Positive Controls: Y79 nuclear extract: sc-2126, Pax-6 (h): 293T Lysate: sc-110018 or Y79 cell lysate: sc-2240.

**STORAGE**

Store at 4°C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**PROTOCOLS**

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**DATA**


**SELECT PRODUCT CITATIONS**

See Pax-6 (PAX6): sc-81649 for Pax-6 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.