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# Pax-6 (264-422): sc-4421 WB

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*The Power to Question*

## 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.

## REFERENCES


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8. Pinto, G.R., et al. 2007. Mutation analysis of gene Pax-6 in human gliomas. Genet. Mol. Res. 6: 1019-1025.
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## CHROMOSOMAL LOCATION

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

## STORAGE

Store at -20° C; stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## SOURCE

Pax-6 (264-422) is expressed in *E. coli* as a 46 kDa GST-tagged fusion protein corresponding to amino acids 264-422 mapping at the C-terminus of Pax-6 of human origin.

## PRODUCT

Pax-6 (264-422) is purified from bacterial lysates (>98%) by glutathione agarose chromatography; supplied as 10 µg in 0.1 ml SDS-PAGE loading buffer.

## APPLICATIONS

Pax-6 (264-422) is suitable as a Western blotting control for sc-7750 and sc-11357.

## RESEARCH USE

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

## PROTOCOLS

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