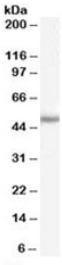
PAX6 Antibody Goat Polyclonal (R35582)

Catalog No.	Formulation	Size
R35582-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse
Predicted Reactivity	Rat
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	5080
Applications	Western Blot : 0.3-1ug/ml ELISA (peptide) LOD : 1:32000
Limitations	This PAX6 antibody is available for research use only.



PAX6 Antibody Goat Polyclonal western blot analysis of mouse eye lysate. A band is detected at approximately 48 kDa, consistent with the predicted molecular weight of Paired Box Protein Pax-6 / PAX6. The goat polyclonal antibody detects Pax-6 in SDS-PAGE immunoblot analysis of ocular tissue lysates.

Description

Paired box protein Pax-6 (PAX6) is a nuclear transcription factor encoded by the PAX6 gene and functions as a key regulator of embryonic eye formation and neural development. The protein belongs to the paired box family of transcription factors and controls transcriptional programs involved in cellular differentiation, tissue patterning, and organogenesis. PAX6 Antibody Goat Polyclonal recognizes Pax-6 and supports research investigating transcription factor expression during developmental processes and cellular lineage specification.

PAX6 is critically involved in development of the eye, brain, and olfactory system. During embryogenesis, Pax-6 regulates gene networks responsible for formation of ocular tissues including the retina, lens, cornea, and iris. In the developing nervous system, PAX6 is expressed in neural progenitor cells and contributes to patterning of the cerebral cortex as well as differentiation of neuronal populations. Because of its essential developmental roles, Pax-6 expression is frequently studied in models of neurogenesis, stem cell differentiation, and developmental genetics.

The PAX6 protein contains several functional domains that enable precise regulation of gene expression. An N-terminal paired domain mediates sequence-specific DNA binding, while a homeodomain provides additional DNA recognition capability. A C-terminal transactivation region enriched in proline, serine, and threonine residues interacts with transcriptional co-regulators and chromatin remodeling proteins to activate gene transcription. Through these domains Pax-6 coordinates transcriptional programs required for proper tissue specification and morphogenesis.

A goat polyclonal PAX6 antibody provides broad antigen recognition by targeting multiple epitopes on the Pax-6 protein. Multi-epitope binding can improve detection sensitivity and increase the likelihood of identifying the protein even when structural variations, post-translational modifications, or partial epitope masking occur. PAX6 Antibody Goat Polyclonal therefore supports reliable detection of Pax-6 in diverse experimental systems and biological sample types.

PAX6 antibody reagents are commonly referenced in the literature using several related names including PAX6 antibody, Pax-6 antibody, paired box protein Pax-6 antibody, and aniridia type II protein antibody. These terms all refer to the transcription factor encoded by the PAX6 gene. PAX6 Antibody Goat Polyclonal recognizes Pax-6 and supports research examining transcriptional regulation, neural differentiation, and developmental signaling pathways involved in tissue formation.

Application Notes

Optimal dilution of the PAX6 Antibody Goat Polyclonal should be determined by the researcher.

Immunogen

Amino acids REEKLRNQRRQASN were used as the immunogen for this PAX6 antibody.

Storage

Aliquot and store the PAX6 antibody at -20oC.

Alternate Names

Pax-6 antibody, paired box protein Pax-6 antibody, aniridia type II protein antibody, Pax6 transcription factor antibody