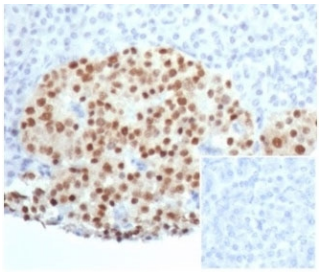
PAX6 Antibody Rabbit Monoclonal PAX6/7078R [clone PAX6/7078R] (V8853)

Catalog No.	Formulation	Size
V8853-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V8853-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V8853SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

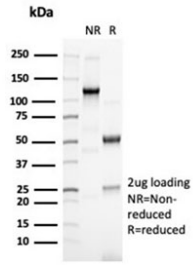
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	PAX6/7078R
Purity	Protein A/G affinity
UniProt	P26367
Localization	Nuclear
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This PAX6 antibody is available for research use only.



PAX6 Antibody Rabbit Monoclonal PAX6/7078R immunohistochemistry analysis of human pancreatic tissue. Formalin-fixed paraffin-embedded human pancreas stained with PAX6 Antibody Rabbit Monoclonal PAX6/7078R. HRP-DAB brown chromogenic staining highlights nuclei of endocrine cells within pancreatic islets, consistent with the expected nuclear localization of Paired Box Protein Pax-6 / PAX6. Negative control inset shows PBS used in place of the primary antibody to confirm specificity of staining. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 minutes and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free PAX6 Antibody Rabbit Monoclonal PAX6/7078R as confirmation of integrity and purity.

Description

Paired box protein Pax-6 (PAX6) is a nuclear transcription factor encoded by the PAX6 gene and is widely recognized as a master regulator of eye and nervous system development. The protein belongs to the paired box family of transcription factors and functions as a key regulator of gene expression during embryogenesis. PAX6 Antibody Rabbit Monoclonal PAX6/7078R recognizes Pax-6 and supports research investigating transcriptional regulation in developmental biology and neural differentiation.

PAX6 plays a critical role in formation of the eye, brain, and olfactory system. During embryonic development, Pax-6 regulates transcriptional networks that guide morphogenesis of ocular tissues including the retina, lens, and cornea. In the developing central nervous system, PAX6 is expressed in neural progenitor cells and contributes to regional patterning and neuronal lineage specification. Because of its fundamental developmental roles, Pax-6 expression is frequently examined in studies of neurogenesis, stem cell differentiation, and organogenesis.

The PAX6 protein contains several functional domains that enable precise control of gene transcription. The N-terminal paired domain binds specific DNA sequences in target gene promoters and enhancers, while the homeodomain provides additional DNA-binding capability. A C-terminal proline-serine-threonine rich transactivation domain interacts with transcriptional co-regulators to control gene expression. Through these domains Pax-6 coordinates transcription of genes required for tissue specification and cellular differentiation.

Mutations or altered expression of PAX6 can lead to developmental abnormalities affecting the eye and nervous system. Genetic mutations in the PAX6 gene are associated with aniridia and other congenital ocular disorders characterized by defects in iris formation and visual system development. Because Pax-6 regulates numerous developmental pathways, the protein remains a central focus of research in developmental genetics and molecular biology.

PAX6 antibody reagents are commonly described in the literature using several related protein 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 Rabbit Monoclonal PAX6/7078R recognizes Pax-6 protein and supports research focused on transcriptional regulation, neural development, and gene expression pathways associated with embryonic tissue patterning.

Application Notes

Optimal dilution of the PAX6 Antibody Rabbit Monoclonal PAX6/7078R should be determined by the researcher.

Immunogen

A portion of amino acids 1-300 was used as the immunogen for the recombinant PAX6 antibody.

Storage

Aliquot the PAX6 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

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

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