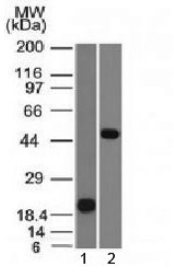
PAX8 Antibody / Transcriptional Network Regulator Antibody [clone PAX8/1491] (V3412)

Catalog No.	Formulation	Size
V3412-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3412-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3412SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	PAX8/1491
Purity	Protein G affinity chromatography
UniProt	Q06710
Localization	Nuclear, cytoplasmic
Applications	Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This PAX-8 antibody is available for research use only.



PAX8 Antibody / Transcriptional Network Regulator Antibody western blot analysis in human samples. Lane 1: human partial recombinant protein, Lane 2: human Raji cell lysate. A band is detected at approximately 48 kDa, consistent with the predicted molecular weight of Paired box protein Pax-8 (PAX8). Additional bands between ~31-43 kDa correspond to known PAX8 isoforms, while a higher band near ~62 kDa may reflect post-translationally modified forms or altered electrophoretic mobility of this nuclear transcription factor. The observed banding pattern supports detection of multiple PAX8 isoforms and aligns with its role in transcriptional regulation across different cellular contexts.

Description

Paired box protein Pax-8 (PAX8) is a nuclear transcription factor encoded by the PAX8 gene that functions as a central regulator of gene expression networks controlling epithelial lineage identity. As a member of the paired box (PAX) family, it binds DNA through a conserved paired domain and coordinates transcriptional programs across multiple epithelial tissues. PAX8 Antibody is uniquely positioned for mechanistic studies focused on transcriptional regulation rather than lineage identification alone.

PAX8 antibody, also referred to as Paired box protein Pax-8 antibody or Pax-8 transcription factor antibody, is particularly suited for investigating transcription factor-driven gene regulation. This PAX8 Antibody is uniquely positioned for studying transcriptional networks, cofactor interactions, and regulatory complexes, distinguishing this page from lineage-focused or diagnostic applications. Nuclear detection reflects direct engagement of PAX8 with chromatin and transcriptional machinery.

Functionally, PAX8 interacts with co-regulators and other transcription factors to form multi-protein complexes that control gene activation and repression. It regulates genes involved in differentiation, proliferation, and epithelial organization, acting as a node within larger transcriptional networks. These interactions allow coordinated control of gene expression rather than isolated transcriptional events.

PAX8 activity is integrated with signaling pathways and epigenetic regulation, enabling dynamic modulation of gene expression in response to cellular context. This makes it particularly relevant for studies examining transcription factor networks, chromatin dynamics, and regulatory feedback systems.

At the cellular level, nuclear PAX8 staining identifies cells actively engaged in transcriptional regulation, allowing correlation of protein localization with gene expression activity. Differences in staining intensity can reflect variation in transcriptional engagement across cell populations.

PAX8 Antibody therefore provides a targeted tool for studying transcriptional network regulation, with emphasis on protein-DNA interactions, cofactor recruitment, and coordinated gene expression control. This differentiates it from lineage marker pages by focusing on mechanism over identity, making it highly relevant for molecular biology and gene regulation research.

Application Notes

Optimal dilution of the PAX8 Antibody / Transcriptional Network Regulator Antibody should be determined by the researcher.

Immunogen

A human recombinant fragment (aa 60-261) was used as the immunogen for the PAX8 Antibody / Transcriptional Network Regulator Antibody.

Storage

Store the PAX-8 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

PAX8 transcriptional network antibody, Paired box protein Pax-8 gene regulation antibody, PAX8 transcription complex antibody, Pax-8 regulatory network antibody, PAX8 cofactor interaction antibody