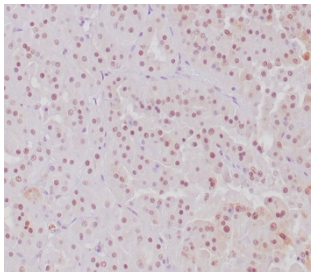
TFE3 Antibody for Immunohistochemistry / Transcription Factor E3 IHC Antibody [clone TFE3/6849R] (V5328)

Catalog No.	Formulation	Size
V5328-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5328-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5328SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

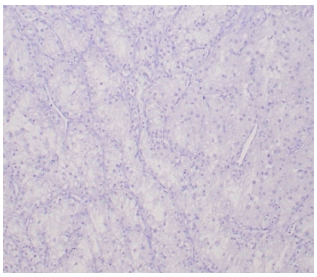
Recombinant RABBIT MONOCLONAL

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	TFE3/6849R
Purity	Protein A/G affinity
UniProt	P19532
Localization	Nucleus
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This TFE3 antibody is available for research use only.



TFE3 Antibody for Immunohistochemistry. Immunohistochemistry analysis of FFPE human MiT translocation renal cell carcinoma tissue demonstrates strong nuclear HRP-DAB brown staining consistent with TFE3 (Transcription factor E3) localization in tumor cell nuclei. Nuclear staining is observed in tumor cells, reflecting the characteristic TFE3 IHC staining pattern associated with MiT family translocation renal cell carcinoma. Hematoxylin counterstain marks nuclei in blue. The recombinant rabbit monoclonal antibody clone TFE3/6849R was used at 2 ug/ml to detect nuclear TFE3 protein in tumor tissue. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 minutes followed by cooling prior to staining.



TFE3 Antibody for Immunohistochemistry. Negative control immunohistochemistry analysis of FFPE human clear cell renal cell carcinoma tissue using the recombinant rabbit monoclonal TFE3 antibody clone TFE3/6849R shows absence of nuclear HRP-DAB brown staining in tumor cells, confirming lack of detectable TFE3 protein in this tissue type. Clear cell RCC typically lacks TFE3 overexpression associated with MiT family translocation tumors, and the absence of nuclear staining supports assay specificity. Hematoxylin counterstain marks nuclei in blue. The recombinant rabbit monoclonal antibody clone TFE3/6849R was used at 2 ug/ml. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 minutes followed by cooling prior to staining.

Description

Transcription factor E3 (TFE3) is a nuclear transcription factor belonging to the MiT family of basic helix-loop-helix leucine zipper proteins that regulate genes involved in lysosomal biogenesis, cellular metabolism, and autophagy. TFE3 Antibody for Immunohistochemistry (clone TFE3/6849R) is designed for detection of TFE3 protein in formalin-fixed paraffin-embedded tissue sections where immunohistochemistry allows visualization of nuclear transcription factor expression directly within preserved tissue architecture. Immunohistochemistry analysis of TFE3 enables investigators and pathologists to evaluate nuclear protein localization within the histological context of normal and tumor tissues.

TFE3 normally functions as a DNA-binding transcription factor localized to the cell nucleus where it regulates transcription of genes involved in metabolic regulation and cellular stress responses. Because of this nuclear localization, immunohistochemistry staining using a TFE3 antibody typically produces nuclear TFE3 staining within positive cells. In immunohistochemistry studies, the expected TFE3 IHC staining pattern is nuclear staining within positive cells, reflecting the protein's role as a nuclear transcription factor and providing a clear signal that can be interpreted within tissue morphology.

Immunohistochemistry detection of TFE3 is particularly relevant in tumor pathology because chromosomal rearrangements involving the TFE3 gene can lead to abnormal accumulation of TFE3 protein in the nucleus. These alterations are characteristic of Xp11 translocation-associated tumors, including specific subtypes of renal cell carcinoma. In these tumors, immunohistochemistry analysis frequently demonstrates strong nuclear TFE3 staining in tumor cells, providing an important morphological feature evaluated during tissue examination.

Clone TFE3/6849R is a recombinant rabbit monoclonal antibody developed for detection of TFE3 protein in FFPE tissue sections. Recombinant rabbit monoclonal antibodies provide consistent target recognition and strong signal detection in tissue-based assays, supporting reliable immunohistochemistry staining of nuclear transcription factors in histological specimens.

Immunohistochemistry staining enables evaluation of TFE3 expression across diverse tissues where transcription factor activity regulates cellular function. By examining nuclear staining patterns within tissue architecture, researchers can compare TFE3 expression among different cell populations and identify abnormal nuclear expression associated with tumor biology.

Because TFE3 functions as a nuclear transcription factor and biomarker associated with certain tumor types, immunohistochemistry detection of nuclear TFE3 staining remains an important tool in both research and diagnostic pathology. Detection of TFE3 using clone TFE3/6849R supports investigation of transcription factor activity, tumor classification, and evaluation of nuclear staining patterns in tissue specimens.

Application Notes

Optimal dilution of the TFE3 Antibody for Immunohistochemistry should be determined by the researcher.

Immunogen

Recombinant full-length human TFE3 protein was used as the immunogen for the TFE3 antibody.

Storage

Aliquot the TFE3 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

TFE3 antibody, Transcription factor E3 antibody, TFE3 transcription factor antibody, TFE3 nuclear transcription factor antibody

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