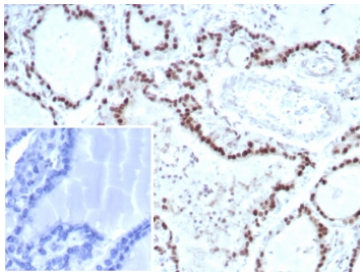
Transcription Factor E3 Antibody for IHC / TFE3 Immunohistochemistry Antibody [clone TFE3/8663R] (V5327)

Catalog No.	Formulation	Size
V5327-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5327-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5327SAF-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	TFE3/8663R
Purity	Protein A/G affinity
UniProt	P19532
Localization	Nucleus
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This Transcription factor E3 antibody is available for research use only.



Transcription Factor E3 Antibody for IHC. Immunohistochemistry analysis of FFPE human thyroid tissue demonstrates strong nuclear HRP-DAB brown staining consistent with TFE3 (Transcription factor E3) localization in cell nuclei. Nuclear staining is observed in thyroid epithelial cells, reflecting the expected localization of this transcription factor within the nucleus where it regulates gene expression. Hematoxylin counterstain marks nuclei in blue. The recombinant rabbit monoclonal antibody clone TFE3/8663R was applied at 2 ug/ml to detect nuclear TFE3 protein in thyroid tissue. Inset: PBS was used in place of the primary antibody as a secondary antibody negative control. 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 function, cellular metabolism, and stress responses. Transcription Factor E3 Antibody for IHC (clone TFE3/8663R) is designed for immunohistochemistry analysis of formalin-fixed paraffin-embedded tissue sections where visualization of nuclear transcription factor expression within preserved tissue architecture is required. Immunohistochemistry detection of TFE3 allows investigators and pathologists to evaluate nuclear protein localization directly within tissue morphology.

TFE3 protein normally localizes to the cell nucleus where it functions as a DNA-binding transcription factor regulating gene expression programs involved in metabolic regulation and lysosomal biogenesis. Because of this nuclear localization, immunohistochemistry staining using a TFE3 antibody typically produces nuclear TFE3 staining in positive cells. This nuclear staining pattern provides a clear and interpretable signal in IHC analysis, allowing assessment of transcription factor expression within individual cells in tissue sections.

Immunohistochemistry detection of TFE3 is widely used in pathology research because certain tumors exhibit increased nuclear TFE3 expression resulting from chromosomal rearrangements involving the TFE3 gene. These alterations occur in Xp11 translocation tumors, including specific subtypes of renal cell carcinoma. In these cases, immunohistochemistry analysis frequently demonstrates strong nuclear TFE3 staining within tumor cells, providing an important morphological indicator evaluated during tissue examination.

Clone TFE3/8663R is a recombinant rabbit monoclonal antibody developed for detection of TFE3 protein in formalin-fixed paraffin-embedded tissue sections. Recombinant rabbit monoclonal antibodies provide consistent target recognition and strong signal detection in tissue-based assays, supporting reliable visualization of nuclear transcription factors in immunohistochemistry studies.

Immunohistochemistry staining enables evaluation of TFE3 expression patterns across a wide range of normal tissues and tumor specimens. By examining nuclear staining patterns within tissue architecture, researchers can compare TFE3 expression among different cell types and identify tumors that display abnormal transcription factor expression.

Because TFE3 functions as a nuclear transcription factor and biomarker associated with certain tumor types, immunohistochemistry detection of nuclear TFE3 staining remains an important approach for studying transcription factor regulation and tumor biology. Detection of TFE3 using clone TFE3/8663R supports investigation of nuclear protein expression patterns in tissue specimens and contributes to studies of transcription factor activity in normal and diseased tissues.

Application Notes

Optimal dilution of the Transcription Factor E3 Antibody for IHC should be determined by the researcher.

Immunogen

Recombinant full-length human protein was used as the immunogen for the Transcription Factor E3 Antibody for IHC antibody.

Storage

Aliquot the Transcription factor E3 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