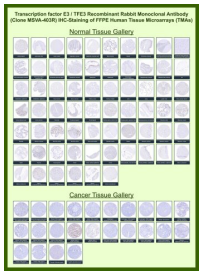
TFE3 Antibody for IHC / Xp11 Translocation Tumor Marker [clone MSVA-403R] (V6117)

Catalog No.	Formulation	Size
V6117-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6117-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	MSVA-403R
UniProt	P19532
Localization	Nucleus
Applications	Immunohistochemistry (FFPE): 1:100-1:200
Limitations	This TFE3 Antibody for IHC is available for research use only.



TFE3 Antibody for IHC Tissue Microarray (TMA). Immunohistochemistry analysis of Transcription factor E3 TFE3 in formalin-fixed paraffin-embedded human normal and cancer tissue microarrays using recombinant rabbit monoclonal TFE3 antibody clone MSVA-403R. Tissue microarray (TMA) staining with HRP-DAB brown chromogen demonstrates nuclear localization consistent with the role of TFE3 as a transcription factor. Strong nuclear staining is observed in tumors associated with Xp11 translocation events, supporting its use as an Xp11 translocation tumor marker, while most normal tissues show little or no nuclear signal. Evaluation across large TMA panels enables comparative analysis of TFE3 expression across multiple organ systems and tumor types under standardized conditions. Hematoxylin counterstain marks nuclei in blue. The observed staining patterns align with reported TFE3 expression profiles in the Human Protein Atlas.

Description

Transcription factor E3 (TFE3) is a member of the MiT family of basic helix-loop-helix leucine zipper transcription factors that regulate genes involved in cellular metabolism, lysosomal biogenesis, and autophagy. TFE3 Antibody for IHC / Xp11

Translocation Tumor Marker (clone MSVA-403R) is designed for immunohistochemistry analysis of tissue sections where detection of TFE3 protein provides a valuable nuclear biomarker for tumor evaluation. Immunohistochemistry staining allows pathologists to visualize TFE3 expression directly within preserved tissue architecture, enabling identification of tumor cells that display characteristic nuclear TFE3 staining patterns.

TFE3 functions as a nuclear transcription factor that binds DNA regulatory elements to control gene expression programs involved in cellular growth and metabolic adaptation. Because the protein normally localizes to the cell nucleus, immunohistochemistry staining using a TFE3 antibody produces nuclear TFE3 staining in positive cells. This nuclear staining pattern is a key feature evaluated in diagnostic pathology when examining tissue sections for tumors associated with TFE3 gene rearrangements.

Chromosomal translocations involving the Xp11 locus can lead to TFE3 gene fusions that cause abnormal overexpression of the TFE3 protein. These alterations are characteristic of Xp11 translocation tumors, including Xp11 translocation renal cell carcinoma and other neoplasms. In these tumors, immunohistochemistry detection of TFE3 frequently reveals strong nuclear TFE3 staining within tumor cells, providing an important morphological indicator that supports tumor classification during pathological examination.

Clone MSVA-403R is a recombinant rabbit monoclonal antibody developed to detect TFE3 protein in formalin-fixed paraffin-embedded tissue sections. Recombinant rabbit monoclonal antibodies provide highly consistent target recognition and strong signal detection in tissue-based assays, making them well suited for immunohistochemistry applications where clear nuclear staining patterns must be interpreted within complex tissue environments.

Tissue microarray (TMA) analysis represents a powerful validation approach for immunohistochemistry antibodies because it allows simultaneous evaluation of staining patterns across large panels of normal and tumor tissues. Immunohistochemistry testing of TMA sections using a TFE3 antibody enables researchers and pathologists to compare nuclear TFE3 staining across multiple tumor types under identical staining conditions. This approach helps confirm antibody specificity and provides valuable insight into the distribution of TFE3 expression in diverse tissues and malignancies.

Because TFE3 functions as a nuclear transcription factor and a biomarker of Xp11 translocation tumors, immunohistochemistry detection of nuclear TFE3 staining remains an important tool for both research and diagnostic pathology. Detection of TFE3 using clone MSVA-403R supports studies of transcription factor activity, tumor biology, and evaluation of nuclear TFE3 staining patterns across tissue microarray panels and individual tumor specimens.

This antibody is also part of a broader collection of IHC antibodies validated by tissue microarray analysis, supporting consistent staining across normal and cancer tissues.

Application Notes

1. Optimal dilution of the TFE3 Antibody for IHC / Xp11 Translocation Tumor Marker antibody should be determined by the researcher.

2. This TFE3/Transcription factor E3 antibody is recombinantly produced by expression in human HEK293 cells.

3. Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced antigen retrieval for 5 minutes in an autoclave at 121oC in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37oC for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to the manufacturer's directions.

Immunogen

Recombinant full-length human TFE3 protein was used as the immunogen for the TFE3 Antibody for IHC / Xp11 Translocation Tumor Marker antibody.

Storage

TFE3/Transcription factor E3 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

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

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