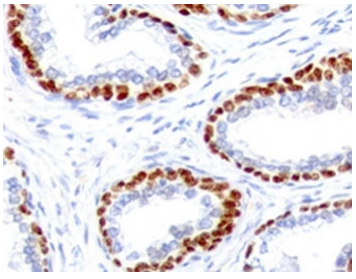
TP63 Antibody / Tumor protein 63 [clone TMPR63-1R] (V3816)

Catalog No.	Formulation	Size
V3816-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3816-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3816SAF-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, k
Clone Name	TMPR63-1R
Purity	Protein A affinity chromatography
UniProt	Q9H3D4
Localization	Nuclear
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This recombinant TP63 antibody is available for research use only.



Immunohistochemistry analysis of p63 expression. Recombinant TP63 antibody (clone TMPR63-1R) staining was performed on formalin-fixed, paraffin-embedded human prostate cancer tissue, showing nuclear DAB-positive staining in basal-type epithelial cells lining glandular structures, with surrounding stromal cells largely negative and hematoxylin counterstaining. Heat-induced epitope retrieval was carried out by boiling tissue sections in Tris buffer (10 mM, pH 9.0) containing EDTA (1 mM) for 10-20 minutes, followed by cooling at room temperature for 20 minutes, with signal detection using an HRP-conjugated secondary antibody and DAB chromogen.

Description

TP63 antibody (clone TMPR63-1R) is a recombinantly produced mAb that targets Tumor protein 63, a nuclear transcription factor encoded by the TP63 gene and a member of the p53 protein family. Tumor protein 63 is predominantly localized to the nucleus of epithelial cells, where it regulates gene expression programs required for epithelial development, differentiation, and tissue homeostasis. TP63 is highly expressed in basal and progenitor cell layers of stratified epithelia, including epidermis, prostate, urothelium, and respiratory epithelium, making it a widely used marker of basal epithelial cell populations.

Functionally, Tumor protein 63 controls epithelial stem cell maintenance and lineage commitment by regulating genes involved in proliferation, adhesion, and differentiation. A short functional summary is that TP63 preserves epithelial integrity and regenerative capacity by maintaining basal cell identity. Through alternative promoter usage and splicing, TP63 gives rise to multiple isoforms with distinct transcriptional activities that fine tune epithelial growth and differentiation programs.

At the molecular level, Tumor protein 63 contains a central DNA binding domain, an oligomerization domain, and variable N-terminal and C-terminal regions that determine transcriptional activity. These structural features allow TP63 to form tetramers and interact with DNA regulatory elements and co-factors. TP63 antibody reagents are commonly used to examine nuclear expression patterns, isoform distribution, and changes in epithelial differentiation status in normal and diseased tissues.

From a biological and disease relevance perspective, TP63 is an established diagnostic marker in pathology, particularly for identifying basal cells in prostate tissue and distinguishing squamous and myoepithelial tumors from other malignancies. Altered expression or imbalance of Tumor protein 63 isoforms has been associated with cancer progression, epithelial dysplasia, and developmental disorders affecting ectoderm derived tissues. TP63 antibody tools are therefore valuable in studies of cancer biology, epithelial differentiation, and tissue architecture.

Developmentally, TP63 expression is essential for stratified epithelial formation and organogenesis. Loss of TP63 function disrupts epithelial integrity and regenerative capacity. TP63 antibodies from NSJ Bioreagents, including clone TMPR63-1R, are supplied for research use to support investigations in cell biology, pathology, and translational epithelial research.

Application Notes

The stated application concentrations are suggested starting points. Titration of the recombinant TP63 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Full-length human recombinant protein was used as the immunogen for the recombinant TP63 antibody.

Storage

Store the recombinant TP63 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).