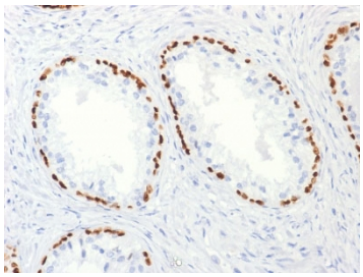
p63 Antibody / Prostate Cancer Marker Antibody [clone TP63/2427] (V3947)

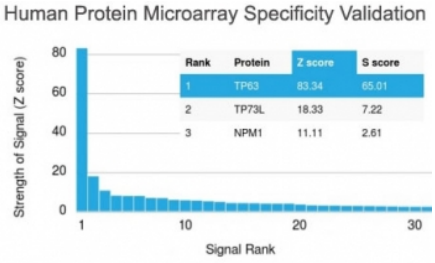
Catalog No.	Formulation	Size
V3947-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3947-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3947SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

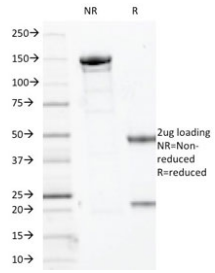
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	TP63/2427
Purity	Protein G affinity chromatography
UniProt	Q9H3D4
Localization	Nuclear
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This p63 antibody is available for research use only.



p63 Antibody Prostate Cancer Marker IHC. Immunohistochemistry analysis of Tumor protein 63 (TP63) in FFPE human prostate carcinoma tissue using a p63 antibody as a prostate cancer marker (clone TP63/2427) demonstrates distinct HRP-DAB brown nuclear staining in residual basal cells outlining benign glands, while malignant glandular epithelial cells remain negative. The continuous basal cell layer is clearly visible in non-neoplastic glands, forming a ring-like nuclear staining pattern, whereas carcinoma glands lack this basal cell staining, reflecting loss of basal epithelial architecture. This contrast provides a clear visual distinction between benign and malignant structures within the same tissue section. The nuclear-restricted signal with low background supports accurate interpretation of TP63 expression and reinforces its role as a marker of basal cell integrity in prostate tissue. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 minutes followed by cooling at room temperature for 20 minutes prior to antibody incubation.



p63 Antibody. Protein microarray specificity analysis using a HuProt(TM) array containing more than 19,000 full-length human proteins demonstrates highly selective binding of mouse monoclonal clone TP63/2427 to Tumor protein 63 (TP63). The antibody shows a dominant top-ranked signal for TP63 with a strong Z-score and clear separation from all other proteins on the array, indicating robust target recognition with minimal off-target interaction. Signals for closely related proteins, including TP73L, are markedly lower, supporting specificity within the p53 protein family. Z-score reflects signal intensity relative to the array mean, while S-score represents the separation between TP63 and the next highest-ranking proteins, confirming clear discrimination of the intended target. These results support the use of this p63 antibody as a prostate cancer marker in applications requiring high specificity and confident interpretation of TP63 expression.



SDS-PAGE analysis of purified, BSA-free p63 antibody (clone TP63/2427) as confirmation of integrity and purity.

Description

Tumor protein 63 (TP63) is a nuclear transcription factor of the p53 family that plays a central role in epithelial development, basal cell maintenance, and lineage specification within glandular tissues such as the prostate. p63 Antibody is widely used as a prostate cancer marker antibody for evaluating TP63 expression patterns in prostate tissue, where nuclear staining provides critical insight into glandular organization and malignant transformation. The ability to visualize TP63-positive basal cells versus TP63-negative tumor cells makes this marker highly informative in tissue-based studies of prostate cancer.

p63 antibody, also known as TP63 antibody or Tumor protein 63 antibody in the literature, is strongly expressed in basal epithelial cells of benign prostate glands. As a prostate cancer marker antibody, p63 produces distinct nuclear staining confined to the basal cell layer in normal and hyperplastic glands, while luminal secretory cells remain negative. In contrast, prostate adenocarcinoma typically lacks a basal cell layer, resulting in an absence of TP63 staining within malignant glands. This stark difference creates a highly interpretable pattern that directly reflects underlying tissue biology and supports clear distinction between benign and malignant structures.

The prostate cancer differentiator is particularly powerful in immunohistochemistry because interpretation is based on the presence or absence of basal cells rather than subtle differences in signal intensity. p63 Antibody enables direct

visualization of basal cell loss, a defining structural feature of prostate carcinoma. Malignant glands show discontinuous or absent nuclear staining, while adjacent benign glands retain a continuous ring of TP63-positive basal cells, allowing direct comparison within the same tissue section and improving interpretive confidence.

A key differentiating strength of this p63 Antibody is its protein microarray specificity validation. Using a human proteome-scale microarray containing thousands of full-length proteins, the antibody demonstrates a dominant top-ranked signal for TP63 with high Z-score intensity and strong S-score separation from all other proteins. This confirms selective binding to the intended target while minimizing off-target interactions, which is especially important for nuclear transcription factors where non-specific staining can complicate interpretation.

This microarray-based validation provides an added layer of confidence beyond traditional testing methods by evaluating antibody specificity across a broad panel of proteins rather than a limited subset. For prostate cancer studies, where interpretation often depends on the clear absence of staining in malignant glands, high specificity is essential to avoid false-positive signal and ensure accurate assessment of basal cell loss.

At the molecular level, TP63 isoforms, particularly deltaNp63, are associated with maintenance of basal epithelial identity and proliferative capacity. Loss of TP63 expression in prostate cancer reflects disruption of basal cell lineage and architectural integrity, reinforcing its role as a marker of glandular differentiation status and epithelial organization.

In tissue-based applications, p63 Antibody enables precise evaluation of prostate gland morphology, tumor boundaries, and epithelial compartmentalization. The nuclear-restricted staining pattern aligns closely with histological features, allowing confident interpretation even in heterogeneous samples containing mixed benign and malignant regions.

p63 Antibody as a prostate cancer marker antibody is further strengthened by its microarray-validated specificity, ensuring that observed staining patterns accurately reflect TP63 biology. Tumor protein 63 antibody therefore serves as a high-confidence tool for investigating prostate cancer, epithelial differentiation, and TP63-associated changes during malignant transformation.

Learn more about p63 expression, basal cell identification, epithelial differentiation, and stem cell biology on our p63 Antibody / Basal Cell Marker Antibody page.

Application Notes

Optimal dilution of the p63 Antibody / Prostate Cancer Marker Antibody should be determined by the researcher.

Immunogen

Full length human recombinant protein was used as the immunogen for the p63 Antibody / Prostate Cancer Marker Antibody.

Storage

Store the p63 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

p63 prostate cancer antibody, TP63 prostate tumor marker antibody, Tumor protein 63 prostate carcinoma antibody, p63 glandular tumor marker antibody

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