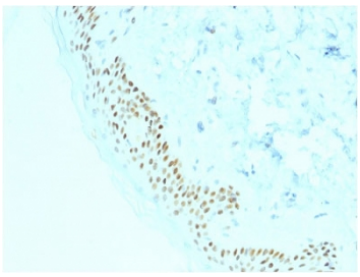
p63 Antibody / Basal Cell Marker Antibody [clone TP63/2428] (V3948)

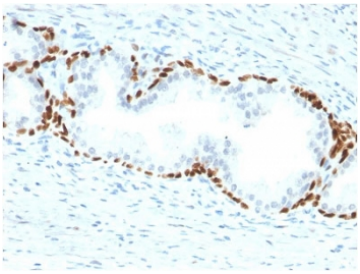
Catalog No.	Formulation	Size
V3948-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3948-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3948SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

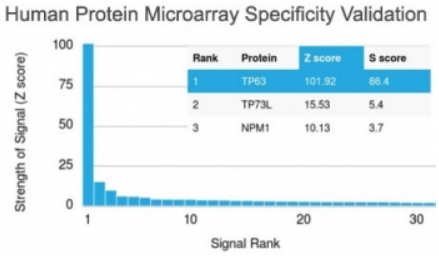
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	TP63/2428
Purity	Protein G affinity chromatography
UniProt	Q9H3D4
Localization	Nuclear
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT Flow Cytometry : 1-2ug/million cells
Limitations	This p63 antibody is available for research use only.



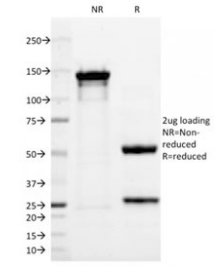
p63 Antibody. Immunohistochemistry analysis of Tumor protein 63 (TP63) in FFPE human basal cell carcinoma tissue using a p63 antibody as a basal cell marker (clone TP63/2428) demonstrates strong HRP-DAB brown nuclear staining in tumor cells with basal-like morphology. The staining is diffuse and nuclear, highlighting the expansion of TP63-positive basal cell populations within the tumor and supporting its identity as a basal cell-derived carcinoma. Surrounding stromal components remain negative, providing clear contrast and reinforcing the lineage-specific expression pattern. The crisp nuclear localization and widespread tumor cell positivity are consistent with the role of TP63 in basal cell maintenance and epithelial proliferation. 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.



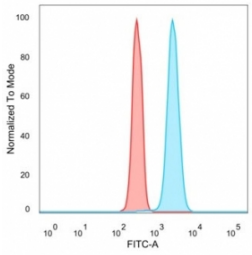
IHC testing of FFPE human prostate carcinoma with p63 antibody (clone TP63/2428). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min.



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 clone TP63/2428 to Tumor protein 63 (TP63). The antibody shows a dominant top-ranked signal for TP63 with a high Z-score and clear separation from all other proteins on the array, indicating strong target recognition with minimal off-target interaction. Signals for related proteins, including TP73L family members, are substantially lower, supporting specificity within closely related transcription factor families. 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 basal cell marker in applications requiring high specificity and confident interpretation of TP63 detection.



SDS-PAGE analysis of purified, BSA-free p63 antibody (clone TP63/2428) as confirmation of integrity and purity.



Flow cytometry testing of PFA-fixed human HeLa cells with p63 antibody (clone TP63/2428); Red=isotype control, Blue= p63 antibody.

Description

Tumor protein 63 (TP63) is a nuclear transcription factor of the p53 family that is essential for epithelial development, basal cell maintenance, and stratified tissue organization. p63 Antibody is widely used as a basal cell marker antibody for identifying basal epithelial cells in tissue sections, where its nuclear expression provides a highly specific and interpretable indicator of basal cell identity.

p63 antibody, also known as TP63 antibody or Tumor protein 63 antibody in the literature, is strongly expressed in basal cell layers of stratified epithelia including prostate, skin, and squamous tissues. As a basal cell marker antibody, p63 produces intense nuclear staining that is sharply restricted to basal compartments, while luminal or differentiated epithelial cells remain negative. This clear spatial contrast allows precise visualization of epithelial architecture, making p63 one of the most reliable markers for defining basal versus luminal organization in histological analysis.

The basal cell marker differentiator is particularly powerful in IHC-based applications, where interpretation depends on tissue context and cellular localization. p63 Antibody highlights the basal cell layer surrounding glandular structures, enabling accurate assessment of epithelial integrity and organization. In prostate tissue, this staining pattern is especially informative, as the presence or absence of basal cells is a key structural feature distinguishing normal glands from malignant lesions.

In cancer-related studies, p63 is frequently associated with basal-like and squamous differentiation patterns. Strong nuclear staining is often retained in basal cell-derived tumors and in squamous cell carcinomas, while many adenocarcinomas show reduced or absent staining. This makes the p63 Antibody basal cell marker angle highly relevant for evaluating tumor phenotype and epithelial lineage relationships, particularly in tissues where basal cell architecture is disrupted during disease progression.

TP63 exists in multiple isoforms, including TAp63 and deltaNp63 variants, with deltaNp63 predominating in basal epithelial cells and contributing to maintenance of an undifferentiated, proliferative state. Nuclear localization of p63 in these cells reflects its role in regulating transcriptional programs that support epithelial renewal and structural stability.

In research applications, p63 Antibody provides a robust tool for identifying basal cell populations, assessing epithelial organization, and studying lineage relationships in both normal and disease contexts. Its strong nuclear staining pattern, combined with clear compartmental restriction, enables confident interpretation of basal cell presence and distribution. Tumor protein 63 antibody remains a cornerstone marker for basal epithelial biology and tissue-based analysis.

Application Notes

Optimal dilution of the p63 Antibody / Basal Cell Marker Antibody should be determined by the researcher.

Immunogen

Full length human recombinant protein was used as the immunogen for the p63 Antibody / Basal Cell 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 basal cell marker antibody, TP63 epithelial basal antibody, Tumor protein 63 basal layer antibody, p63 progenitor cell marker antibody