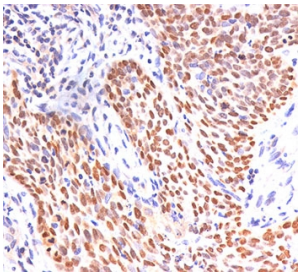
p40 Antibody / Basal Progenitor Cell Maintenance Marker Antibody (V2304)

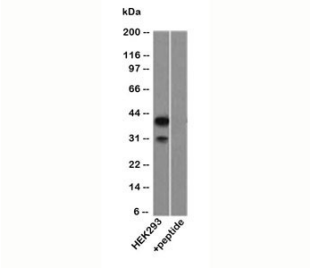
Catalog No.	Formulation	Size
V2304-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2304-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2304SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2304IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

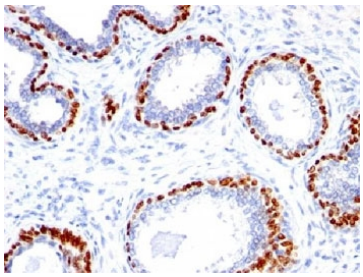
Species Reactivity	Human, Mouse, Rat
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Protein A affinity chromatography
Gene ID	8626
Localization	Nuclear
Applications	Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This **p40 antibody** is available for research use only.



p40 Antibody IHC. Immunohistochemistry analysis of FFPE human lung squamous cell carcinoma tissue demonstrates strong HRP-DAB brown nuclear staining in tumor cell populations, while surrounding stromal cells remain largely negative. The nuclear-restricted staining pattern highlights epithelial cells with basal-like characteristics and supports use of this antibody as a basal progenitor cell maintenance marker, reflecting deltaNp63-driven transcriptional programs associated with proliferative epithelial compartments. Staining is intense and well-defined, allowing clear distinction between p40-positive tumor regions and adjacent negative tissue. Heat-induced epitope retrieval was performed using pH 9 10mM Tris with 1mM EDTA buffer.



p40 Antibody. Western blot analysis of HEK293 cell lysate demonstrates detection of Tumor protein p40 (deltaNp63) as a prominent band near ~40 kDa, with an additional lower band observed at ~30-35 kDa. The ~40 kDa signal is consistent with shorter deltaNp63 isoforms reported in the literature, including deltaNp63gamma, which migrates below the full-length protein. The lower band may represent further truncated or proteolytically processed deltaNp63-related species that retain the antibody epitope. The presence of these bands reflects the known complexity of TP63 isoform expression and processing.



IHC testing of FFPE human prostate cancer with p40 antibody.

Description

Tumor protein p40 (TP63), representing the deltaNp63 isoform, is a nuclear transcription factor that plays a central role in maintaining basal epithelial progenitor cells and supporting epithelial renewal. p40 Antibody is widely used as a basal progenitor cell maintenance marker antibody for identifying epithelial cells that retain proliferative capacity and contribute to tissue homeostasis. Nuclear deltaNp63 expression reflects activation of transcriptional programs that preserve progenitor identity and prevent premature differentiation.

p40 antibody, also known as deltaNp63 antibody or TP63 deltaNp63 antibody in the literature, provides isoform-specific detection that aligns closely with basal cell biology. By selectively detecting deltaNp63, this antibody enables accurate identification of progenitor cell populations without interference from other TP63 isoforms that may be expressed in different cellular contexts.

This p40 Antibody is uniquely positioned for studies of epithelial progenitor maintenance, where distinguishing basal stem-like cells from differentiated populations is essential. deltaNp63 regulates genes involved in cell survival, proliferation, and epithelial integrity, supporting the long-term maintenance of basal cell compartments across a range of epithelial tissues.

The basal progenitor differentiator is particularly important in tissues characterized by continuous turnover, such as skin and glandular epithelium, where basal cells serve as the source of differentiated cell layers. p40 Antibody produces strong nuclear staining in these basal compartments, enabling researchers to define progenitor zones and evaluate their relationship to differentiated epithelial structures.

In tissue-based analysis, p40 Antibody highlights basal epithelial layers with intense nuclear staining, while suprabasal and luminal cells show reduced or absent signal. This creates a clear structural contrast that supports interpretation of epithelial organization and identification of progenitor cell niches within intact tissue architecture.

deltaNp63 also contributes to epithelial resilience by supporting survival pathways and maintaining barrier integrity. Its expression marks cells capable of regeneration and repair, making it a key indicator of epithelial renewal capacity in both normal and disease contexts.

p40 Antibody as a basal progenitor cell maintenance marker antibody is particularly valuable for studies of tissue regeneration, epithelial homeostasis, and tumor biology, where basal-like cells often contribute to growth and cellular plasticity. The ability to identify these cells through nuclear staining provides a direct link between transcriptional regulation and cellular function.

Tumor protein p40 antibody enables detailed analysis of basal progenitor populations, supporting investigation of epithelial renewal, differentiation balance, and TP63-driven maintenance of proliferative cell states.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the p40 Antibody / Basal Progenitor Cell Maintenance Marker Antibody to be titered up or down for optimal performance.

1. Staining of FFPE tissues requires boiling sections in 1mM EDTA, pH 9, for 10-20 min followed by cooling at RT for 20 min.
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip Ab solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Amino acids ENNAQTQFSEPQY (aa 5-17) of human p40 / p63 delta were used as the immunogen for this p40 Antibody / Basal Progenitor Cell Maintenance Marker Antibody.

Storage

Store the p40 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

p40 basal progenitor antibody, deltaNp63 stem-like epithelial antibody, TP63 basal cell maintenance antibody, p40 progenitor marker antibody

References (3)