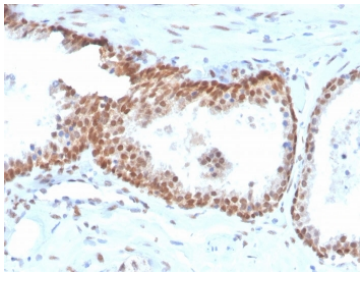
p40 Antibody Biotin Conjugate / deltaNp63 Rabbit Monoclonal Biotin Antibody [clone TP40/3980R] (V8628BTN)

Catalog No.	Formulation	Size
V8628BTN	0.1 mg/ml with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	500 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Biotin Conjugate
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	TP40/3980R
Purity	Protein A affinity chromatography
UniProt	Q9H3D4
Localization	Nuclear
Applications	Flow Cytometry : 2-4ug/million cells Immunofluorescence : 2-4ug/ml Immunohistochemistry (FFPE) : 2-4ug/ml for 30 minutes at RT
Limitations	This recombinant p40 antibody is available for research use only.



p40 Antibody Biotin Conjugate. Immunohistochemistry analysis of Tumor protein p40 (deltaNp63) in FFPE human prostate tissue using a p40 Antibody Biotin Conjugate (clone TP40/3980R) demonstrates strong HRP-DAB brown nuclear staining in basal epithelial cells outlining glandular structures, with luminal epithelial cells remaining negative. The nuclear staining is intense and well-defined, forming a continuous basal cell layer pattern that clearly delineates gland architecture. The enhanced signal intensity is consistent with the high affinity of the recombinant rabbit monoclonal format combined with biotin-streptavidin amplification, resulting in robust nuclear detection with minimal background. Surrounding stromal cells remain largely unstained, providing clear contrast and supporting accurate interpretation of deltaNp63-positive basal cell populations. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 minutes followed by cooling prior to antibody incubation.

Description

Tumor protein p40, representing the deltaNp63 isoform of TP63, is a nuclear transcription factor that regulates epithelial differentiation and maintains squamous cell identity. p40 Antibody Biotin Conjugate is designed to deliver high-affinity detection of deltaNp63 combined with biotin-based signal amplification, enabling strong and sensitive nuclear staining in a wide range of experimental systems. The recombinant rabbit monoclonal format of clone TP40/3980R provides enhanced binding affinity and robust signal generation, making it particularly well suited for applications requiring high sensitivity and strong nuclear signal.

p40 antibody, also known as deltaNp63 antibody in the literature, is widely recognized as a highly specific marker of squamous epithelial cells and tumors with squamous differentiation. Unlike pan-p63 antibodies, p40 selectively detects the deltaNp63 isoform, providing improved specificity for squamous lineage identification. As a biotin conjugated antibody, this reagent supports amplified detection through streptavidin-based systems, allowing enhanced visualization of nuclear targets while maintaining precise localization.

The rabbit monoclonal differentiator is particularly important for achieving strong signal intensity and high sensitivity. Rabbit monoclonal antibodies are known for superior epitope recognition and higher binding affinity compared to many mouse monoclonal antibodies. When combined with a recombinant format, clone TP40/3980R delivers consistent performance along with enhanced detection capability, making it highly effective in applications where signal strength is critical.

The biotin conjugate differentiator further amplifies this advantage by enabling multi-step signal enhancement through the biotin-streptavidin interaction. This is especially beneficial for detecting transcription factors such as deltaNp63, where nuclear staining must be both strong and sharply defined. Amplified detection improves visualization of positive nuclei while maintaining low background, supporting confident interpretation of staining patterns.

In immunohistochemistry, p40 Antibody Biotin Conjugate produces intense nuclear staining in basal epithelial cells and squamous cell populations, with clear separation from negative surrounding tissue. The increased signal intensity provided by both rabbit monoclonal affinity and biotin amplification allows detection of deltaNp63 even in samples with variable or low expression levels.

The biotinylated format also provides flexibility for use in multiplex assays and customized detection workflows. Researchers can pair the antibody with enzyme-based or fluorescent streptavidin conjugates, enabling adaptation to different experimental designs without compromising specificity or signal quality.

p40 Antibody Biotin Conjugate using clone TP40/3980R combines deltaNp63 isoform specificity, recombinant rabbit monoclonal affinity, and amplified detection capability. This makes it a high-sensitivity tool for studying epithelial differentiation, squamous tumor biology, and lineage-specific protein expression with strong and well-defined nuclear staining.

Application Notes

Optimal dilution of the p40 Antibody Biotin Conjugate / deltaNp63 Rabbit Monoclonal Biotin Antibody should be determined by the researcher.

Immunogen

A synthetic peptide from the N-terminal of human p40 protein was used as the immunogen for the p40 Antibody Biotin Conjugate / deltaNp63 Rabbit Monoclonal Biotin Antibody.

Storage

Store the recombinant p40 antibody at 2-8oC (up to one month) or aliquot and store at -20oC (longer term).

Alternate Names

p40 rabbit monoclonal biotin antibody, deltaNp63 rabbit biotinylated antibody, TP40 rabbit monoclonal antibody, p40 streptavidin amplification antibody