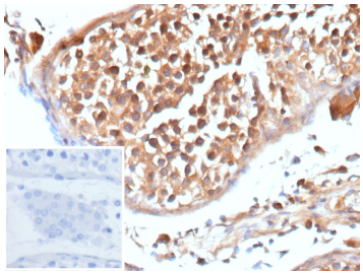
APC Antibody / Adenomatous polyposis coli [clone rEMM43] (V5912)

Catalog No.	Formulation	Size
V5912-100UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5912-20UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug
V5912SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

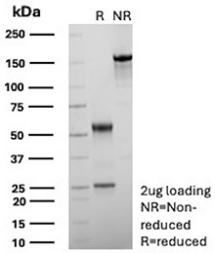
Recombinant MOUSE MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG2b, kappa
Clone Name	rEMM43
UniProt	P25054
Localization	Adherens junction, Cell junction, Cell membrane, Cell projection, Cytoplasm, Cytoskeleton
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This APC/Adenomatous polyposis coli antibody is available for research use only.



Formalin-fixed, paraffin-embedded human testis stained with recombinant APC/Adenomatous polyposis coli antibody (clone rEMM43). Germ cells within seminiferous tubules show cytoplasmic brown chromogenic staining, consistent with Adenomatous polyposis coli expression, while surrounding stromal elements show minimal signal. Nuclei are counterstained blue. Inset shows a PBS-only negative control processed without primary antibody, demonstrating minimal non-specific background staining.



SDS-PAGE Analysis of purified recombinant APC/Adenomatous polyposis coli antibody (clone rEMM43). Confirmation of Purity and Integrity of Antibody.

Description

APC antibody targets Adenomatous polyposis coli, a large tumor suppressor protein encoded by the APC gene that plays a central role in regulation of the Wnt signaling pathway. Adenomatous polyposis coli is predominantly localized to the cytoplasm and cell membrane, with additional roles at the nucleus and cytoskeleton, reflecting its multifunctional nature. APC is best known for its function as a key negative regulator of beta-catenin, forming a destruction complex that promotes beta-catenin degradation and prevents inappropriate activation of Wnt target genes. Because of this critical role, an APC antibody is widely used in studies of cell signaling, epithelial homeostasis, and cancer biology.

Adenomatous polyposis coli is an essential component of the beta-catenin destruction complex, which also includes Axin, GSK3 beta, and CK1. Through coordinated phosphorylation and ubiquitination of beta-catenin, APC helps maintain controlled cell proliferation and differentiation in epithelial tissues, particularly in the intestinal epithelium. Loss or dysfunction of APC leads to stabilization of beta-catenin and constitutive Wnt pathway activation, a hallmark of colorectal tumorigenesis. Use of an APC antibody enables investigation of Wnt pathway regulation and beta-catenin-dependent transcriptional control.

In addition to its signaling role, Adenomatous polyposis coli contributes to cytoskeletal organization, cell polarity, and directed cell migration. APC interacts with microtubules, actin-associated proteins, and cell junction components, supporting processes such as mitotic spindle positioning and maintenance of epithelial architecture. APC antibody reagents are therefore frequently used to study cytoskeletal dynamics and epithelial cell organization in both normal and transformed cells.

Mutations in the APC gene are a defining feature of familial adenomatous polyposis and are present in the majority of sporadic colorectal cancers. Truncating mutations result in loss of key regulatory domains of Adenomatous polyposis coli, disrupting beta-catenin regulation and promoting tumor initiation. Altered APC expression and localization have also been reported in other malignancies, including gastric, pancreatic, and hepatocellular cancers. An APC antibody is an important research tool for examining tumor suppressor loss, pathway dysregulation, and disease-associated changes in protein expression.

Adenomatous polyposis coli is a member of the APC family of tumor suppressor proteins and contains multiple functional domains, including armadillo repeats and beta-catenin binding regions, which underpin its diverse biological activities. Because APC expression reflects both signaling status and cellular architecture, antibody-based detection of APC is widely applied in cancer research, developmental biology, and studies of epithelial tissue maintenance.

Clone rEMM43 is designed to recognize Adenomatous polyposis coli and supports detection of APC expression in research applications. NSJ Bioreagents offers this APC antibody to support investigations into Wnt signaling, colorectal cancer biology, cytoskeletal regulation, and tumor suppressor function.

Application Notes

1. Optimal dilution of the APC/Adenomatous polyposis coli antibody should be determined by the researcher.

2. This APC/Adenomatous polyposis coli antibody is recombinantly produced by expression in CHO cells.

Immunogen

Prokaryotic recombinant protein corresponding to a 251 amino acid region of the C-terminus of the human adenomatous polyposis coli protein was used as the immunogen for the APC/Adenomatous polyposis coli antibody.

Storage

APC/Adenomatous polyposis coli antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.