Revision 4

APC Antibody

#2504 Store at -20C

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355) orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, W-S, IP	H	Endogenous	160 truncated APC in SW480 cells. 310 full-length APC.	Rabbit	#P25054	324

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Simple Western™	1:10 - 1:50
Immunoprecipitation	1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

APC Antibody detects endogenous levels of total APC protein.

Species predicted to react based on 100% sequence homology

Mouse, Rat, Monkey

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence of human APC. Antibodies are purified by protein A and peptide affinity chromatography.

Background

The Adenomatous Polyposis Coli (APC) tumor suppressor gene is mutated in most familial and sporadic colorectal cancers and encodes a large cytoplasmic protein that is implicated in cell migration, cell adhesion, and proliferation (1). APC binds directly to microtubules and lack of APC leads to defective mitotic spindles and aneuploidy due to missegregation of chromosomes (2). APC is well characterized as a scaffolding protein, binds to β-catenin, and is involved in the regulation of its intracellular concentration. In the absence of a Wnt signal, GSK-3β phosphorylates all three members of the APC-β-catenin-axin complex and this phosphorylation of β-catenin creates a recognition site for ubiquitin, the signal for proteasome-mediated degradation. In the presence of a Wnt signal, dishevelled inactivates GSK-3β and β-catenin coordinates gene transcription of proteins important for the control of cell cycle progression and proliferation, such as cyclin D1 and c-Myc (3).

Background References

1. Shih, I. M. et al. (2000) *Cancer Res.* 60, 1671-1676.
2. Kaplan, K. B. et al. (2001) *Nat Cell Biol.* 3, 429-432.
3. Fodde, R. (2002) *Eur J Cancer.* 38, 86-871.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **W-S:** Simple Western™ **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

Trademarks and Patents

Limited Uses

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