Revision 1

Store at -20C

#14807

APC10 Antibody

Cell Signaling TECHNOLOGY®

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Mk	Endogenous	24	Rabbit	#Q9UM13	10393

Product Usage Information

Application	Dilution
Western Blotting	1:1000

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

APC10 Antibody recognizes endogenous levels of total APC10 protein.

Species predicted to react based on 100% sequence homology

Chicken, Bovine, Pig

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human APC10 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Eukaryotic cell proliferation depends strictly upon the E3 ubiquitin ligase activity of the anaphase promoting complex/cyclosome (APC/C), whose main function is to trigger the transition of the cell cycle from metaphase to anaphase. The APC/C complex promotes the assembly of polyubiquitin chains on substrate proteins in order to target these proteins for degradation by the 26S proteasome (1,2). The vertebrate APC/C complex consists of as many as 15 subunits, including multiple scaffold proteins, two catalytic subunits (APC2, APC11), and a number of proteins responsible for substrate recognition (3). All E3 enzymes, including APC/C, utilize ubiquitin residues activated by E1 enzymes and transferred to E2 enzymes. Research studies indicate that APC/C interacts with the E2 enzymes UBE2S and UBE2C via the RING-finger domain-containing subunit APC11 (4-6). APC/C function relies on multiple cofactors, including an APC/C coactivator formed by the cell division control protein 20 homolog (CDC20) and Cdh1/FZR1. The CDC20/Cdh1 coactivator is responsible for recognition of APC/C substrates through interaction with specific D-box and KEN-box recognition elements within these substrates (7-9). Anaphase-promoting complex subunit 10 (APC10, DOC1) is a highly conserved, core component of the anaphase promoting complex/cyclosome (10,11). Research studies indicate that APC10 participates in substrate recognition by the APC/C (3,12,13).

Background References

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6. Leverson, J.D. et al. (2000) *Mol Biol Cell* 11, 2315-25.
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10. Kurasawa, Y. and Todokoro, K. (1999) *Oncogene* 18, 5131-7.
11. Grossberger, R. et al. (1999) *J Biol Chem* 274, 14500-7.
12. Carroll, C.W. et al. (2005) *Curr Biol* 15, 11-8.
13. Passmore, L.A. et al. (2003) *EMBO J* 22, 786-96.

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 BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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