

**APC8 Antibody**

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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, IP	H Mk	Endogenous	64	Rabbit	#Q9UJX2	8697

**Product Usage Information****Application**

Western Blotting  
Immunoprecipitation

**Dilution**

1:1000  
1:100

**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**

APC8 Antibody recognizes endogenous levels of total APC8 protein.

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human APC8 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 8 (APC8, CDC23) is a component of the tetratricopeptide repeat (TPR) APC/C sub-complex that also includes APC3 (CDC27) and APC6 (CDC16). APC8 protein associates with APC3 and APC6 to facilitate recruitment of the APC/C coactivation subunits CDC20 and Cdh1/FZR1 (10,11). Research studies suggest that APC8 protein is overexpressed in papillary thyroid cancer and acts as an important regulator of cell cycle progression and cell growth (12).

**Background References**

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2. Harper, J.W. et al. (2002) *Genes Dev* 16, 2179-206.
3. Chang, L. et al. (2014) *Nature* 513, 388-93.
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5. Gmachl, M. et al. (2000) *Proc Natl Acad Sci U S A* 97, 8973-8.
6. Leverson, J.D. et al. (2000) *Mol Biol Cell* 11, 2315-25.
7. Kraft, C. et al. (2005) *Mol Cell* 18, 543-53.
8. Glotzer, M. et al. (1991) *Nature* 349, 132-8.
9. Pflieger, C.M. and Kirschner, M.W. (2000) *Genes Dev* 14, 655-65.
10. Matyskiela, M.E. and Morgan, D.O. (2009) *Mol Cell* 34, 68-80.
11. Thornton, B.R. et al. (2006) *Genes Dev* 20, 449-60.
12. Zhang, L. et al. (2011) *Endocr Relat Cancer* 18, 731-42.

**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 **IP:** Immunoprecipitation

**Cross-Reactivity Key**

**H:** Human **Mk:** Monkey

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