

#13329 Store at -20°C

APC1 (D1E9D) Rabbit mAb


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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:
WB, IP	H Mk	Endogenous	216	Rabbit IgG	#Q9H1A4	64682

Product Usage Information	Application Western Blotting Immunoprecipitation	Dilution 1:1000 1:200
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	APC1 (D1E9D) Rabbit mAb recognizes endogenous levels of total APC1 protein.	
Species predicted to react based on 100% sequence homology:	Dog, Pig, Horse	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human APC1 protein.	
Background	<p>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).</p> <p>The ubiquitously expressed anaphase-promoting complex subunit 1 (APC1) is the largest subunit of the APC/C complex (10). Research studies demonstrate that APC1 undergoes extensive phosphorylation on serine and threonine residues during the mitotic phase of the eukaryotic cell cycle (11).</p>	
Background References	<ol style="list-style-type: none"> Qiao, X. et al. (2010) <i>Cell Cycle</i> 9, 3904-12. Harper, J.W. et al. (2002) <i>Genes Dev</i> 16, 2179-206. Chang, L. et al. (2014) <i>Nature</i> 513, 388-93. Carroll, C.W. and Morgan, D.O. (2002) <i>Nat Cell Biol</i> 4, 880-7. Gmachl, M. et al. (2000) <i>Proc Natl Acad Sci U S A</i> 97, 8973-8. Levenson, J.D. et al. (2000) <i>Mol Biol Cell</i> 11, 2315-25. Kraft, C. et al. (2005) <i>Mol Cell</i> 18, 543-53. Glötzer, M. et al. (1991) <i>Nature</i> 349, 132-8. Pfleger, C.M. and Kirschner, M.W. (2000) <i>Genes Dev</i> 14, 655-65. Jörgensen, P.M. et al. (2001) <i>Gene</i> 262, 51-9. Kraft, C. et al. (2003) <i>EMBO J</i> 22, 6598-609. 	

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

WB: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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