

#12301 Store at -20C

APC2 Antibody



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3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R Mk	Endogenous	100	Rabbit	#Q9UJX6	29882

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	APC2 Antibody recognizes endogenous levels of total APC2 protein.	
Species predicted to react based on 100% sequence homology:	Hamster, Bovine, Dog, Guinea Pig	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys458 of human APC2 protein. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	<p>Cell proliferation in all eukaryotic cells depends strictly upon the ubiquitin ligase (E3) 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. APC/C performs its various functions by promoting the assembly of polyubiquitin chains on substrate proteins, which targets these proteins for degradation by the 26S proteasome (1,2). In humans, twelve different APC/C subunits have been identified. Like all E3 enzymes, APC/C utilizes ubiquitin residues that have been activated by E1 enzymes and then transferred to E2 enzymes. Indeed, APC/C has been shown to interact with UBE2S and UBE2C E2 enzymes, in part, via the RING-finger domain-containing subunit, APC11 (3-5). APC/C activity is also strictly dependent upon its association with multiple cofactors. For example, the related proteins, Cdc20 and Cdh1/FZR1, participate in the recognition of APC/C substrates by interacting with specific recognition elements in these substrates (6), called D-boxes (7) and KEN-boxes (8).</p> <p>Anaphase-promoting complex subunit 2 (APC2) is a distant member of the cullin family (9,10) that interacts with a RING-H2 finger protein related to Rbx1/Hrt1/Roc1, called APC11, to form the catalytic subcomplex of the APC/C. The APC2/11 subcomplex recruits E2 enzymes such as UBE2C/UBCH10 and is required for the APC/C to catalyze substrate ubiquitination (11). Therefore, APC is a member of the expanding family of cullin-RING finger-based ubiquitin ligases. The physiologic importance of APC2 was underscored by the finding that disruption of murine <i>Apc2</i> causes embryonic lethality (12).</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. 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. Leverson, 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. Glutzer, 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. Zachariae, W. et al. (1998) <i>Science</i> 279, 1216-9. Yu, H. et al. (1998) <i>Science</i> 279, 1219-22. Tang, Z. et al. (2001) <i>Mol Biol Cell</i> 12, 3839-51. Wirth, K.G. et al. (2004) <i>Genes Dev</i> 18, 88-98. 	

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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