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#14090

APC11 (D1E7Q) Rabbit mAb

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UniProt ID #Q9NYG5

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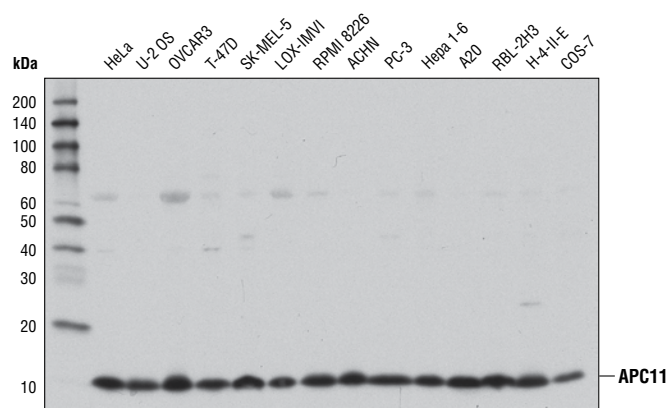
Applications W, IP Endogenous	Species Cross-Reactivity* H, M, R, Mk	Molecular Wt. 10 kDa	Isotype Rabbit IgG**
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Background: Eukaryotic cell proliferation depends strictly upon the E3 ubiquitin ligase activity of the anaphase promoting complex/cyclosome (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 11 (APC11) harbors a RING-H2 motif, which is characterized by a series of non-tandem His and Cys residues responsible for the coordination of zinc cations. At the primary amino acid level, APC11 displays sequence similarity to RING-box proteins RBX1 and RBX2, which are the RING-H2 motif-containing subunits of SCF ubiquitin ligase complexes (10). A heterodimer complex containing APC11 and the cullin-like subunit, APC2, forms the catalytic core of the APC/C and is critical for the APC/C to catalyze ubiquitin chain elongation (4,11).

Specificity/Sensitivity: APC11 (D1E7Q) Rabbit mAb recognizes endogenous levels of total APC11 protein. This antibody does not cross-react with either RBX1 or RBX2.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a full-length human recombinant APC11 protein.



Western blot analysis of extracts from various cell lines using APC11 (D1E7Q) Rabbit mAb.

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.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:100

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended complementary products.

Background References:

- (1) Qiao, X. et al. (2010) *Cell Cycle* 9, 3904-12.
- (2) Harper, J.W. et al. (2002) *Genes Dev* 16, 2179-206.
- (3) Chang, L. et al. (2014) *Nature* 513, 388-93.
- (4) Carroll, C.W. and Morgan, D.O. (2002) *Nat Cell Biol* 4, 880-7.
- (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.
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- (10) Chan, A.H. et al. (2001) *J Cell Biochem* 83, 249-58.
- (11) Tang, Z. et al. (2001) *Mol Biol Cell* 12, 3839-51.

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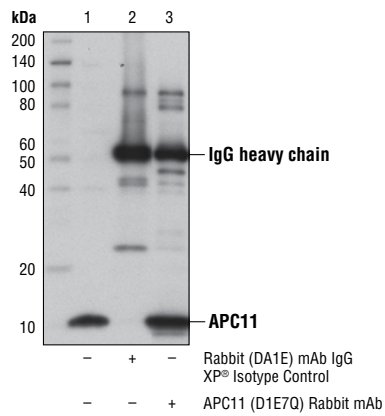
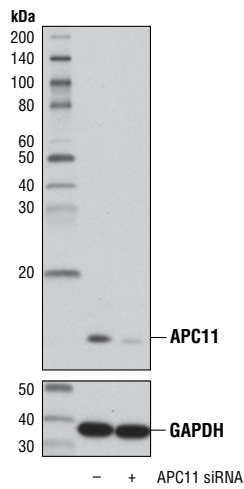
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IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



Immunoprecipitation of APC11 from 293T cell extracts using either Rabbit (DA1E) mAb IgG XP® Isotype Control #3900 (lane 2) or APC11 (D1E7Q) Rabbit mAb (lane 3). Lane 1 is 10% input. Western blot analysis was performed using APC11 (D1E7Q) Rabbit mAb.

Western blot analysis of extracts from 293T cells, transfected with 100 nM SignalSilence® Control siRNA (Unconjugated) #6568 (-) or SignalSilence® APC11 siRNA I #14100 (+), using APC11 (D1E7Q) Rabbit mAb (upper) or GAPDH (D16H11) XP® Rabbit mAb #5174 (lower). The APC11 (D1E7Q) Rabbit mAb confirms silencing of APC11, while the GAPDH (D16H11) XP® Rabbit mAb is used as a loading control.