Revision 1

Store at -20C

#9499

APC6 (D8D8) Rabbit mAb

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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 M R Mk	Endogenous	72	Rabbit IgG	#Q13042	8881

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100

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

APC6 (D8D8) Rabbit mAb recognizes endogenous levels of total APC6 protein. Based upon sequence alignment, this antibody is not predicted to cross-react with either APC8/CDC23 or APC3/CDC27.

Species predicted to react based on 100% sequence homology

Bovine, Dog, Pig

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human APC6 protein.

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 6 (APC6, CDC16) is a component of the tetratricopeptide repeat (TPR) sub-complex of the APC/C, which includes APC8/CDC23 and APC3/CDC27. This sub-complex may play an important role in the recruitment of the APC/C activators, CDC20 and Cdh1 (10). Additional evidence suggests that phosphorylation of APC6 and the other TPR subunits during mitosis plays a functional role in regulating the association between TPR subunits and substrate recognition subunits such as Cdc20 (11).

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.
7. Kraft, C. et al. (2005) *Mol Cell* 18, 543-53.
8. Glotzer, M. et al. (1991) *Nature* 349, 132-8.
9. Pfleger, C.M. and Kirschner, M.W. (2000) *Genes Dev* 14, 655-65.
10. Schreiber, A. et al. (2011) *Nature* 470, 227-32.
11. Kraft, C. et al. (2003) *EMBO J* 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 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 **M:** Mouse **R:** Rat **Mk:** Monkey

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.