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# APC7 Antibody

Catalog # ASC11119

## Product Information

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| **Application** | WB, IF, E |
| **Primary Accession** | Q9UJX3 |
| **Other Accession** | NP_057322, 212549736 |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Calculated MW** | 63133 |
| **Concentration (mg/ml)** | 1 mg/mL |
| **Conjugate** | Unconjugated |
| **Application Notes** | APC7 antibody can be used for detection of APC7 by Western blot at 1 - 2 g/mL. Antibody can also be used for immunoflourescence starting at 20 g/mL. For immunofluorescence start at 20 g/mL. |

## Additional Information

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| **Gene ID** | 51434 |
| **Other Names** | Anaphase-promoting complex subunit 7, APC7, Cyclosome subunit 7, ANAPC7, APC7 |
| **Target/Specificity** | ANAPC7; |
| **Reconstitution & Storage** | APC7 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures. |
| **Precautions** | APC7 Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | ANAPC7 ( HGNC:17380) |
| **Synonyms** | APC7 |
| **Function** | Component of the anaphase promoting complex/cyclosome (APC/C), a cell cycle-regulated E3 ubiquitin ligase that controls progression through the cell cycle (PubMed:18485873, PubMed:27120157, PubMed:27509861). APC/C acts by mediating ubiquitination and subsequent degradation of target proteins: it mainly mediates the formation of 'Lys-11'-linked polyubiquitin chains and, to a lower extent, the formation of 'Lys-48'- and 'Lys-63'-linked polyubiquitin chains (PubMed:18485873). APC/C catalyzes assembly of branched |

'Lys-11'-/'Lys- 48'-linked branched ubiquitin chains on target proteins (PubMed:29033132). APC/C is activated by CDC20 in the metaphase/anaphase transition of cell cycle, targeting the degradation of cyclin B and securin (PubMed:27120157, PubMed:27509861). APC/C is regulated by the mitotic checkpoint complex (MCC), which inhibits APC/C and delays chromosome segregation (PubMed:27509861). Has an enzyme- substrate adapter activity mediating the processive ubiquitination of specific substrates (PubMed:34942119). Involved in brain development through the specific ubiquitination and clearance of MKI67 from constitutive heterochromatin after neuronal progenitors exit mitosis (PubMed:34942119).

**Cellular Location**

Cytoplasm, cytoskeleton. Nucleus Cytoplasm, cytoskeleton, spindle Note=Localizes to spindle during metaphase and to cytoplasmic microtubules during interphase.

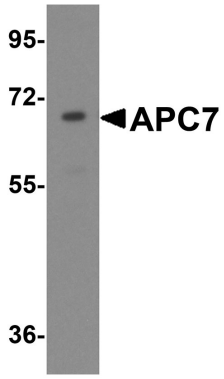
## Background

APC7 Antibody: Cell cycle regulated protein ubiquitination and degradation within subcellular domains is thought to be essential for the normal progression of mitosis. APC7 is a highly conserved component of the anaphase promoting complex/cyclosome (APC/C), a cell cycle-regulated E3 ubiquitin ligase that controls progression through mitosis and the G1 phase of the cell cycle. APC/C is responsible for degrading anaphase inhibitors, mitotic cyclins, and spindle-associated proteins ensuring that events of mitosis take place in proper sequence. The individual APC/C components mRNA and protein levels are expressed at approximately the same levels in most tissues and cell lines, suggesting that they perform their functions as part of a complex. APC7 is required for proper protein ubiquitination function of APC/C and for the interaction of APC/C with various transcription coactivators.

## References

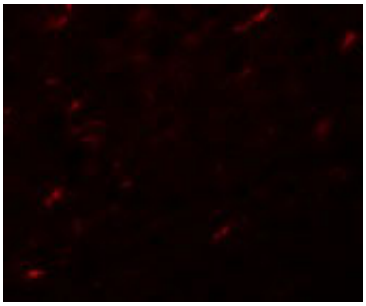
JM Peters. The anaphase promoting complex/cyclosome: a machine designed to destroy. Nat. Rev. Mol. Cell Biol.2006; 7:644-56.
Jorgensen PM, Graslund S, Betz R, et al. Characterisation of the human APC1, the largest subunit of the anaphase-promoting complex. Gene2001; 262:51-9.

## Images




Western blot analysis of APC7 in HeLa cell lysate with APC7 antibody at 1 µg/mL.

Immunofluorescence of APC7 in rat kidney tissue with APC7 antibody at 20 µg/mL.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.