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APC7 Antibody

Catalog # ASC11119

Product Information

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

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℃ for three months and -20℃, 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

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 mitosis and the G1 phase of the cell cycle (PubMed:18485873). The APC/C complex 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). The APC/C complex catalyzes

	assembly of branched 'Lys-11'-/'Lys-48'-linked branched ubiquitin chains on target proteins (PubMed:29033132). APC7 is not required for the assembly of the APC/C complex, but 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.

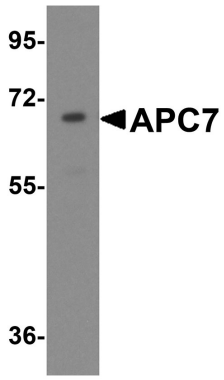
Background

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.

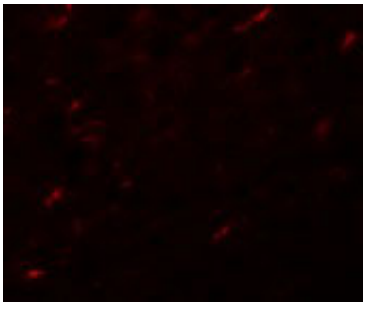
References

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'.