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APC5 Antibody

Catalog # ASC11117

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q9UJX4
Other Accession	Q9UJX4, 37537861
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	85077
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	APC5 antibody can be used for detection of APC5 by Western blot at 1 - 2 g/mL. Antibody can also be used for immunohistochemistry starting at 5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	51433
Other Names	Anaphase-promoting complex subunit 5, APC5, Cyclosome subunit 5, ANAPC5, APC5
Target/Specificity	ANAPC5;
Reconstitution & Storage	APC5 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	APC5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ANAPC5
Synonyms	APC5
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).

Cellular Location Nucleus. Cytoplasm, cytoskeleton, spindle

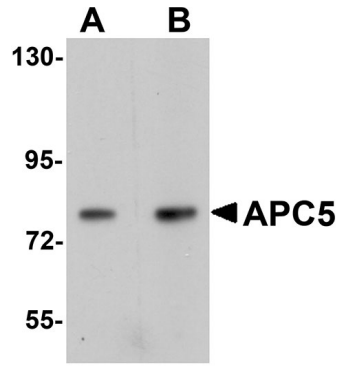
Background

APC5 Antibody: Cell cycle regulated protein ubiquitination and degradation within subcellular domains is thought to be essential for the normal progression of mitosis. APC5 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. While little is known of APC5, it is thought that APC5 associates with other APC/C components APC1, APC4, and CDC23 interdependently, such that loss of any one subunit reduces binding between the remaining three.

References

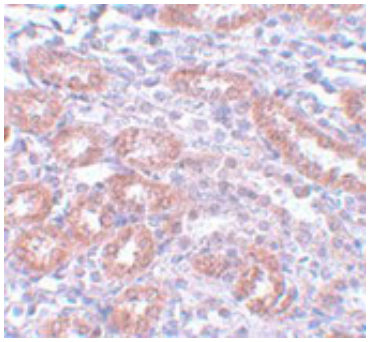
JM Peters. The anaphase promoting complex/cyclosome: a machine designed to destroy. Nat. Rev. Mol. Cell Biol.2006; 7:644-56.
Jorgensen PM, Graslund S, Betz R, et al. Characterisation of the human APC1, the largest subunit of the anaphase-promoting complex. Gene2001; 262:51-9.
Thronton BR, Ng TM, Matyskiela ME, et al. An architectural map of the anaphase-promoting complex. Genes Dev.2006; 20:449-60.

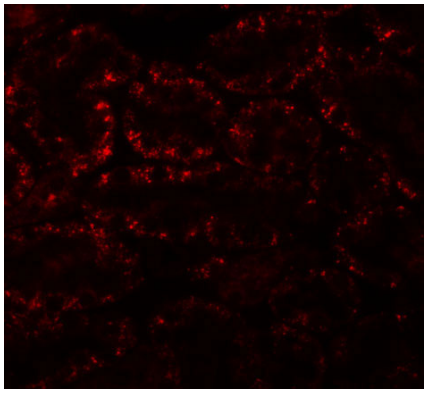
Images



Western blot analysis of APC5 in human kidney tissue lysate with APC5 antibody at (A) 1 and (B) 2 µg/mL.

Immunohistochemistry of APC5 in rat kidney tissue with APC5 antibody at 5 µg/mL.





Immunofluorescence of APC5 in rat kidney tissue with APC5 antibody at 20 µg/mL.

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