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CDC27 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1417a

Product Information

Application	WB, IHC, E
Primary Accession	P30260
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	5C12
Isotype	IgG1
Calculated MW	91867
Description	Cdc27 shares strong similarity with Saccharomyces cerevisiae protein Cdc27, and the gene product of Schizosaccharomyces pombe nuc 2. It is a component of the Anaphase Promoting Complex (APC), which is composed of eight protein subunits and is highly conserved in eucaryotic cells. The APC catalyzes the formation of the cyclin B ubiquitin conjugate that is responsible for the ubiquitin mediated proteolysis of B type cyclins. This protein and 3 other members of the APC complex contain the TPR (tetratricopeptide repeat), a protein domain important for protein protein interaction. This protein was shown to interact with mitotic checkpoint proteins including Mad2, p55CDC and BUBR1, and thus may be involved in controlling the timing of mitosis.
Immunogen	Purified recombinant fragment of human CDC27 expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	996
Other Names	Cell division cycle protein 27 homolog, Anaphase-promoting complex subunit 3, APC3, CDC27 homolog, CDC27Hs, H-NUC, CDC27, ANAPC3, D0S1430E, D17S978E
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CDC27 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CDC27
Synonyms	ANAPC3, D0S1430E, D17S978E
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

References

1. Mol Cell Biol. 2004 May;24(9):3577-87. 2. J Biol Chem. 2004 Oct 1;279(40):42128-38.

Images

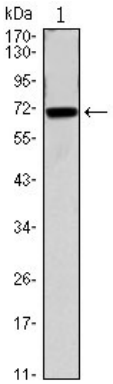


Figure 1: Western blot analysis using CDC27 mouse mAb against CDC27(AA: 724-830)-hIgGFc transfected HEK293 cell.

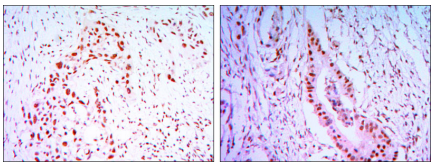


Figure 2: Immunohistochemical analysis of paraffin-embedded lung cancer tissues (left) and colon cancer tissues (right) using CDC27 mouse mAb with DAB staining.

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