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Aurora-C Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7000D

Product Information

Application	WB, E
Primary Accession	Q9UQB9
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB6507
Calculated MW	35591
Antigen Region	3-38

Additional Information

Gene ID	6795
Other Names	Aurora kinase C, Aurora 3, Aurora/IPL1-related kinase 3, ARK-3, Aurora-related kinase 3, Aurora/IPL1/Eg2 protein 2, Serine/threonine-protein kinase 13, Serine/threonine-protein kinase aurora-C, AURKC, AIE2, AIK3, AIRK3, ARK3, STK13
Target/Specificity	This Aurora-C antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 3-38 amino acids from the N-terminal region of human Aurora-C.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Aurora-C Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	AURKC
Synonyms	AIE2, AIK3, AIRK3, ARK3, STK13

Function	Serine/threonine-protein kinase component of the chromosomal passenger complex (CPC), a complex that acts as a key regulator of mitosis. The CPC complex has essential functions at the centromere in ensuring correct chromosome alignment and segregation and is required for chromatin-induced microtubule stabilization and spindle assembly. Also plays a role in meiosis and more particularly in spermatogenesis. Has redundant cellular functions with AURKB and can rescue an AURKB knockdown. Like AURKB, AURKC phosphorylates histone H3 at 'Ser-10' and 'Ser-28'. AURKC phosphorylates the CPC complex subunits BIRC5/survivin and INCENP leading to increased AURKC activity. Phosphorylates TACC1, another protein involved in cell division, at 'Ser-228'.
Cellular Location	Nucleus. Chromosome. Chromosome, centromere. Cytoplasm, cytoskeleton, spindle. Note=Distributes in the condensed chromosomes during prophase to metaphase. After entering anaphase, there is a dissociation from separated chromosomes and a redistribution to midzone microtubules, and finally remains in the midbody during cytokinesis.
Tissue Location	Isoform 1 and isoform 2 are expressed in testis. Elevated expression levels were seen only in a subset of cancer cell lines such as Hep-G2, Huh-7 and HeLa. Expression is maximum at M phase

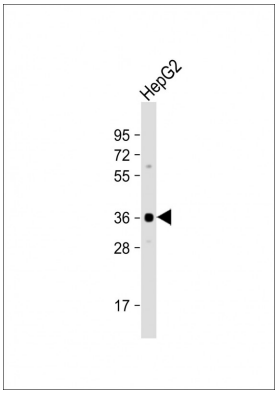
Background

Chromosomal segregation during mitosis as well as meiosis is regulated by kinases and phosphatases. The Aurora kinases, members of the Ser/Thr protein kinase family, associate with microtubules during chromosome movement and segregation. Aurora kinase C may play a part in organizing microtubules in relation to the function of the centrosome/spindle pole during mitosis. This protein is localized to centrosome from anaphase to cytokinesis. Expression is limited to testis in normal cells. Elevated expression levels are seen only in a subset of cancer cells such as HepG2, HuH7 and HeLa cells. Aurora-C expression is maximum at M phase.

References

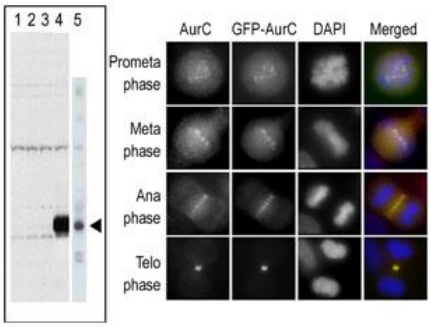
Kimura, M., et al., J. Biol. Chem. 274(11):7334-7340 (1999).
Tseng, T.C., et al., DNA Cell Biol. 17(10):823-833 (1998).
Bernard, M., et al., Genomics 53(3):406-409 (1998).

Images



Anti-Aurora-C Antibody (N-term) at 1:1000 dilution + HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 36 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

The anti-Aurora C Pab (Cat. #AP7000d) is used in Western blot to detect Aurora C in lysates of 293 cells expressing Flag tag (lane 1), Flag-tagged Aurora A (lane 2),



Flag-tagged Aurora B (lane 3), Flag-tagged Aurora C (lane 4), and in A375 cell lysate. In the immunofluorescence experiment, staining of HeLa cells expressing GFP-Aurora C is performed at different cellular mitotic stages with the anti-Aurora C Pab as primary antibody (column A), GFP fluorescence (column B), DAPI nuclear staining (column C), and anti-Aurora C merged to DAPI staining (column D). Data with Flagged Aurora is kindly provided by Drs. K. Sasai and S. Sen from the University of Texas MD Anderson Cancer Center (Houston, TX).

Citations

- EBP2 plays a key role in Epstein-Barr virus mitotic segregation and is regulated by aurora family kinases.

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