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Aurora-A Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7002c

Product Information

Application	WB, IF, FC, E
Primary Accession	O14965
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	364-392

Additional Information

Other Names	Aurora kinase A, Aurora 2, Aurora/IPL1-related kinase 1, ARK-1, Aurora-related kinase 1, hARK1, Breast tumor-amplified kinase, Serine/threonine-protein kinase 15, Serine/threonine-protein kinase 6, Serine/threonine-protein kinase aurora-A, AURKA
Target/Specificity	This Aurora-A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 364-392 amino acids from the C-terminal region of human Aurora-A.
Dilution	WB~~1:1000 IF~~1:10~50 FC~~1:10~50 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-A Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Background

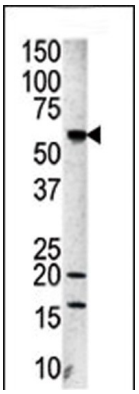
Chromosomal segregation during mitosis as well as meiosis is regulated by kinases and phosphatases. The Aurora kinases, members of the Ser/Thr protein kinase family, associate with microtubules during chromosome movement and segregation. Auroria kinase A may play a role in cell cycle regulation during anaphase and/or telophase, in relation to the function of the centrosome/spindle pole region during

chromosome segregation. It may be involved in microtubule formation and/or stabilization. This protein has also been postulated to play a key role during tumor development and progression. Aurora kinase A localizes on centrosomes in interphase cells and at each spindle pole in mitosis. It is highly expressed in testis, weakly in skeletal muscle, thymus and spleen, and also highly expressed in colon, ovarian, prostate, neuroblastoma, breast and cervical cancer cell lines. Expression is cell-cycle regulated, low in G1/S, accumulates during G2/M, and decreases rapidly afterward. Defects in Aurora kinase A are responsible for numerical centrosome aberrations including aneuploidy.

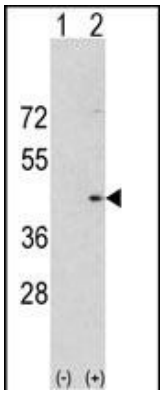
References

Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002). Tanaka, M., et al., J. Biol. Chem. 277(12):10719-10726 (2002). Nigg, E.A., Nat. Rev. Mol. Cell Biol. 2(1):21-32 (2001). Deloukas, P., et al., Nature 414(6866):865-871 (2001). Shindo, M., et al., Biochem. Biophys. Res. Commun. 244(1):285-292 (1998).

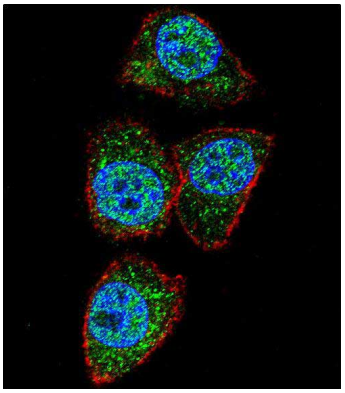
Images



Western blot analysis of anti-Aurora-A Pab (Cat. #AP7002c) in A2058 cell line lysate.Aurora-A(arrow) was detected using the purified Pab.

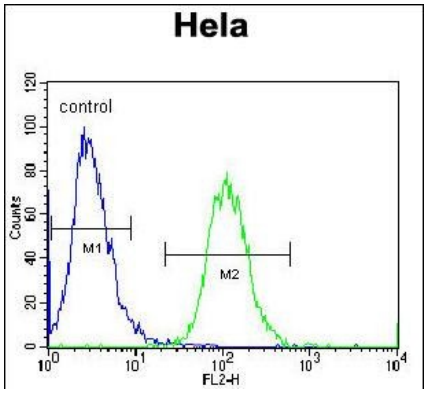


Western blot analysis of Aurora-A (arrow) using rabbit polyclonal Aurora-A Antibody (C-term) (Cat. #AP7002c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the Aurora-A gene (Lane 2) (Origene Technologies).



Confocal immunofluorescent analysis of Aurora-A Antibody (C-term)(Cat#AP7002c) with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green).Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).DAPI was used to stain the cell nuclear (blue).

Aurora-A Antibody (C-term) (Cat. #AP7002c) flow cytometric analysis of Hela cells (right histogram) compared to a negative control cell (left



histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

- The FOXM1 transcriptional factor promotes the proliferation of leukemia cells through modulation of cell cycle progression in acute myeloid leukemia.