



ARK-1 Monoclonal Antibody

Catalog No	YP-Ab-14120
Isotype	IgG
Reactivity	Human;Rat;Monkey
Applications	WB;IHC;IF;ELISA
Gene Name	AURKA
Immunogen	Purified recombinant fragment of human ARK-1 expressed in E. Coli.
Specificity	ARK-1 Monoclonal Antibody detects endogenous levels of ARK-1 protein.
Formulation	Ascitic fluid containing 0.03% sodium azide,0.5% BSA, 50%glycerol.
Source	Monoclonal, Mouse
Purification	Affinity purification
Dilution	WB: 1/500 - 1/2000. IHC: 1/200 - 1/1000. ELISA: 1/10000.. IF 1:50-200
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	Aurora A;1F4B10;AIRK1;ARK-1;AURA;AURKA;Serine/threonine-protein kinase 6;AIK;ARK1;AYK1;BTAK;IAK1;STK15;STK6;Aurora kinase A;Aurora 2;Aurora/ IPL1-related kinase 1;Aurora-related kinase 1;hARK1;Breast tumor-amplified kinase;Serine/threonine-protein kinase 15;Serine/threonin
Observed Band	
Calculated Molecular Weight	
Cell Pathway	Cytoplasm, cytoskeleton, microtubule organizing center, centrosome . Cytoplasm, cytoskeleton, spindle pole . Cytoplasm, cytoskeleton, cilium basal body . Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole . Cell projection, neuron projection . Detected at the neurite hillock in developing neurons (By similarity). Localizes at the centrosome in mitotic cells from early prophase until telophase, but also localizes to the spindle pole MTs from prophase to anaphase (PubMed:9606188, PubMed:17229885, PubMed:21225229). Colocalized with SIRT2 at centrosome (PubMed:22014574) . Moves to the midbody during both telophase and cytokinesis (PubMed:17726514). Associates with both the pericentriolar material (PCM) and centrioles (PubMed:22014574). The localization to the spindle
Tissue Specificity	Highly expressed in testis and weakly in skeletal muscle, thymus and spleen. Also highly expressed in colon, ovarian, prostate, neuroblastoma, breast and cervical cancer cell lines.



Function

catalytic activity:ATP + a protein = ADP + a phosphoprotein.,caution:Although authors have considered STK6 and STK15 as two different proteins, it is clear that they are the same protein.,disease:Defects in AURKA are responsible for numerical centrosome aberrations including aneuploidy.,function: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. May be involved in microtubule formation and/or stabilization. Phosphorylates ARHGEF2 and BORA.,PTM:Phosphorylated upon DNA damage, probably by ATM or ATR.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. Aurora subfamily.,similarity:Contains 1 protein kinase domain.,subcellular location:Localizes on centrosomes in interphase cells and at

Background

The protein encoded by this gene is a cell cycle-regulated kinase that appears to be involved in microtubule formation and/or stabilization at the spindle pole during chromosome segregation. The encoded protein is found at the centrosome in interphase cells and at the spindle poles in mitosis. This gene may play a role in tumor development and progression. A processed pseudogene of this gene has been found on chromosome 1, and an unprocessed pseudogene has been found on chromosome 10. Multiple transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jul 2008],

matters needing attention

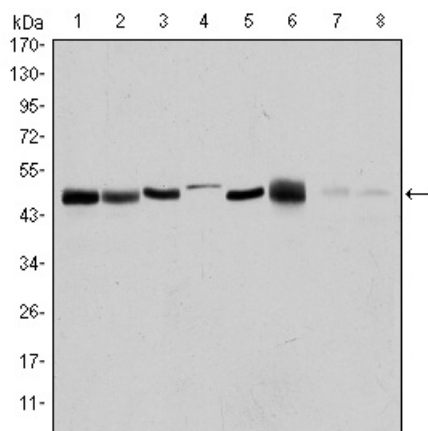
Avoid repeated freezing and thawing!

Usage suggestions

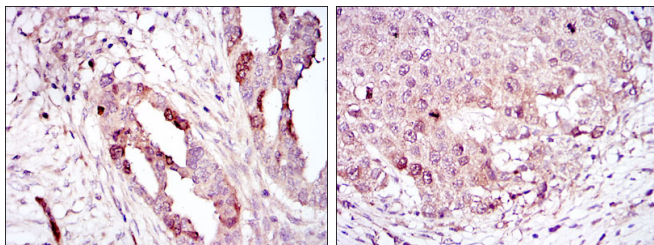
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



Products Images



Western Blot analysis using ARK-1 Monoclonal Antibody against HEK293 (1), Sw620 (2), MCF-7 (3), Jurkat (4), HeLa (5), HepG2 (6), Cos7 (7) and PC-12 (8) cell lysate.



Immunohistochemistry analysis of paraffin-embedded ovarian cancer (left) and lung cancer (right) with DAB staining using ARK-1 Monoclonal Antibody.

