

## ARK-1 Monoclonal Antibody

<b>Catalog No :</b>	YM0047
<b>Reactivity :</b>	Human;Rat;Monkey
<b>Applications :</b>	WB;IF;FCM;ELISA
<b>Target :</b>	ARK-1
<b>Fields :</b>	>>Oocyte meiosis;>>Progesterone-mediated oocyte maturation
<b>Gene Name :</b>	AURKA
<b>Protein Name :</b>	Serine/threonine-protein kinase 6
<b>Human Gene Id :</b>	6790
<b>Human Swiss Prot No :</b>	O14965
<b>Mouse Swiss Prot No :</b>	P97477
<b>Rat Swiss Prot No :</b>	P59241
<b>Immunogen :</b>	Purified recombinant fragment of human ARK-1 expressed in E. Coli.
<b>Specificity :</b>	ARK-1 Monoclonal Antibody detects endogenous levels of ARK-1 protein.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Monoclonal, Mouse
<b>Dilution :</b>	WB 1:500 - 1:2000. IF 1:200 - 1:1000. Flow cytometry: 1:200 - 1:400. ELISA: 1:10000. Not yet tested in other applications.
<b>Purification :</b>	Affinity purification
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)

**Molecularweight :** 46kD

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**Cell Pathway :** Oocyte meiosis;

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**P References :**

1. Cell Cycle. 2008 Nov 15;7(22):3525-33.
2. Oncogene. 2008 Nov 20;27(51):6539-49.

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**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],

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**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

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**Subcellular Location :** 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

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**Expression :** 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.

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**Sort :** 2250

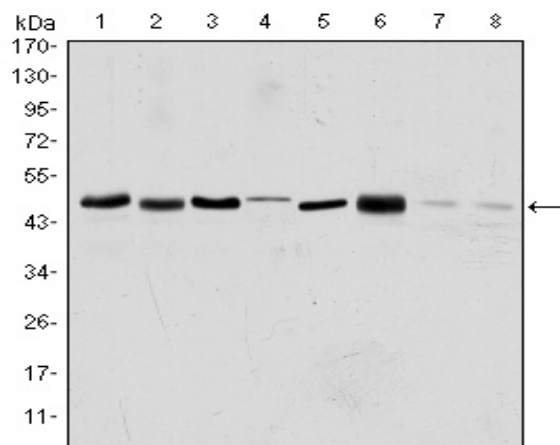
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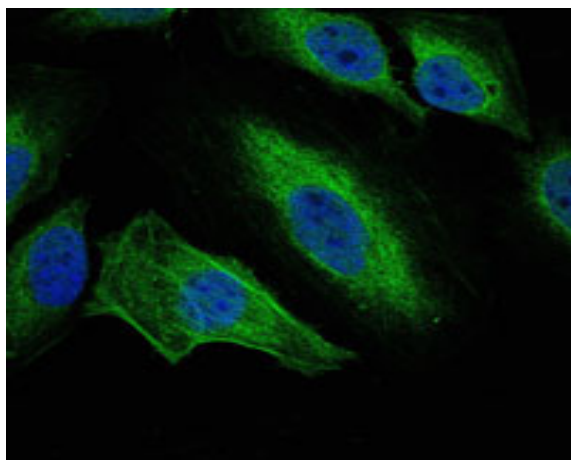
<b>No4 :</b>	1
<b>Host :</b>	Mouse
<b>Modifications :</b>	Unmodified

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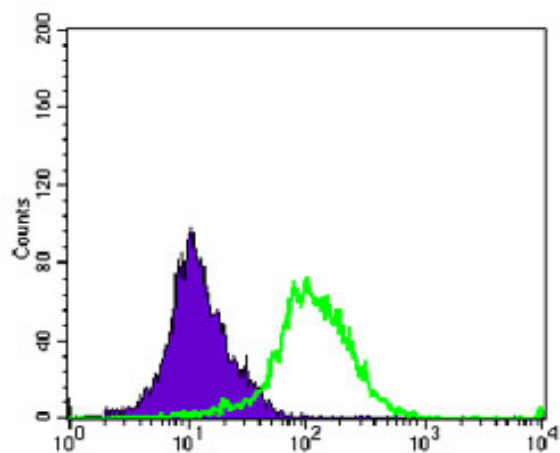
## Products Images



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.



Immunofluorescence analysis of HeLa cells using ARK-1 Monoclonal Antibody (green). Blue: DRAQ5 fluorescent DNA dye.



Flow cytometric analysis of K562 cells using ARK-1 Monoclonal Antibody (green) and negative control (purple).

