

**ARK-1 (phospho Ser342) Polyclonal Antibody**

<b>Catalog No :</b>	YP1014
<b>Reactivity :</b>	Human;Mouse;Rat
<b>Applications :</b>	IHC;IF;ELISA
<b>Target :</b>	ARK-1
<b>Fields :</b>	>>Oocyte meiosis;>>Progesterone-mediated oocyte maturation
<b>Gene Name :</b>	AURKA
<b>Protein Name :</b>	Aurora kinase A
<b>Human Gene Id :</b>	6790
<b>Human Swiss Prot No :</b>	O14965
<b>Mouse Gene Id :</b>	20878
<b>Mouse Swiss Prot No :</b>	P97477
<b>Rat Swiss Prot No :</b>	P59241
<b>Immunogen :</b>	The antiserum was produced against synthesized peptide derived from human AurA around the phosphorylation site of Ser342. AA range:311-360
<b>Specificity :</b>	Phospho-ARK-1 (S342) Polyclonal Antibody detects endogenous levels of ARK-1 protein only when phosphorylated at S342.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Polyclonal, Rabbit,IgG
<b>Dilution :</b>	IHC 1:100 - 1:300. ELISA: 1:10000.. IF 1:50-200
<b>Purification :</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

**Concentration :** 1 mg/ml

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**Storage Stability :** -15°C to -25°C/1 year(Do not lower than -25°C)

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**Molecularweight :** 46kD

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**Cell Pathway :** Oocyte meiosis;

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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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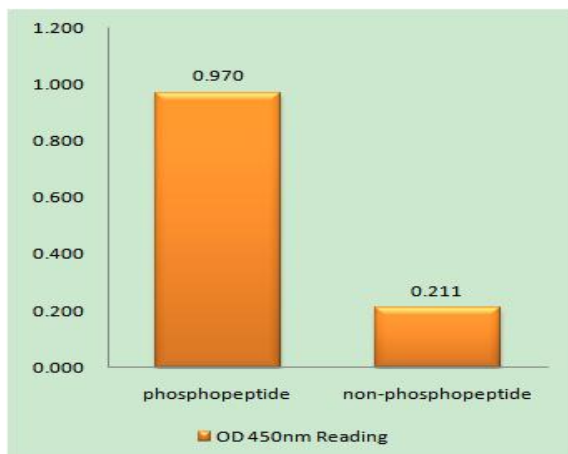
**Subcellular Location :** Cytoplasm, cytoskeleton, microtubule organizing center, centrosome . Cytoplasm, cytoskeleton, spindle pole . Cytoplasm, cytoskeleton, cilium basal body . Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole . Cell projection, neuron projection . Detected 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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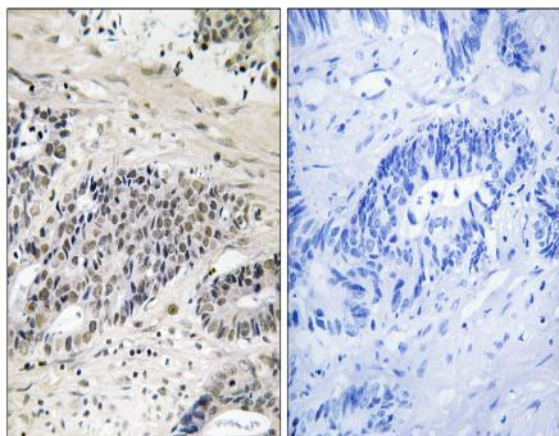
**Expression :** Highly expressed in testis and weakly in skeletal muscle, thymus and spleen. Also highly expressed in colon, ovarian, prostate, neuroblastoma, breast and cervical cancer cell lines.

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## Products Images



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using AurA (Phospho-Ser342) Antibody



Immunohistochemistry analysis of paraffin-embedded human colon carcinoma, using AurA (Phospho-Ser342) Antibody. The picture on the right is blocked with the phospho peptide.