ARK-2/3 (Phospho Thr236/202) Rabbit pAb

CatalogNo: YP1015

Key Features

Host Species	Reactivity	Applications
• Rabbit	• Human,Mouse,Rat	• IHC,IF,ELISA

MW	Isotype
• 35-40kD (Calculated)	• IgG

Recommended Dilution Ratios

IHC 1:100-1:300
ELISA 1:10000
IF 1:50-200

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	The antiserum was produced against synthesized peptide derived from human AurB/C around the phosphorylation site of Thr236/202. AA range:201-250
Specificity	This antibody detects endogenous Ark2 only when phosphorylated at Human:T236, Mouse:T241, Rat:T239.This antibody detects endogenous Ark3 only when phosphorylated at Human:T202, Mouse:T175, Rat:T175.The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):CGtLD

Target Information

Gene name AURKB/AURKC

Protein Name Serine/threonine-protein kinase 12/Aurora kinase C

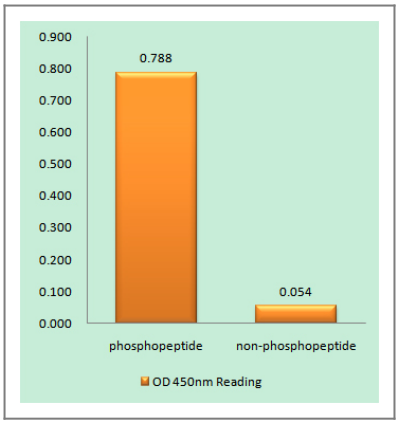
Organism	Gene ID	UniProt ID
Human	9212; 6795;	Q96GD4; Q9UQB9;
Mouse	20877;	
Rat	114592;	O55099;

Cellular Localization Nucleus . Chromosome . Chromosome, centromere . Chromosome, centromere, kinetochore . Cytoplasm, cytoskeleton, spindle . Midbody . Localizes on chromosome arms and inner centromeres from prophase through metaphase and then transferring to the spindle midzone and midbody from anaphase through cytokinesis (PubMed:20929775). Colocalized with gamma tubulin in the midbody (PubMed:17726514). Proper localization of the active, Thr-232-phosphorylated form during metaphase may be dependent upon interaction with SPDYC (PubMed:20605920). Colocalized with SIRT2 during cytokinesis with the midbody (PubMed:17726514). Localization (and probably targeting of the CPC) to the inner centromere occurs predominantly in regions with overlapping mitosis-specific histone phosphorylations H3pT3 and H2ApT12 (PubMed:20929775). .

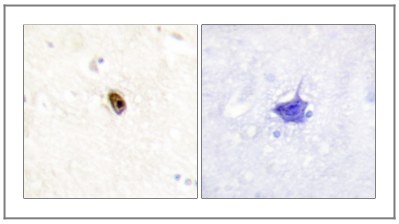
Tissue specificity High level expression seen in the thymus. It is also expressed in the spleen, lung, testis, colon, placenta and fetal liver. Expressed during S and G2/M phase and expression is up-regulated in cancer cells during M phase. ; [Isoform 3]: Not expressed in normal liver, high expression in metastatic liver.

Function Catalytic activity:ATP + a protein = ADP + a phosphoprotein.,cofactor:Magnesium.,Disease:Disruptive regulation of expression is a possibile mechanism of the perturbation of chromosomal integrity in cancer cells through its dominant-negative effect on cytokinesis.,Function:May be directly involved in regulating the cleavage of polar spindle microtubules and is a key regulator for the onset of cytokinesis during mitosis. 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. Phosphorylates 'Ser-10' and 'Ser-28' of histone H3 during mitosis.,similarity:Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. Aurora subfamily.,similarity:Contains 1 protein kinase domain.,subcellular location:Localizes on chromosome arms and inner centromeres from prophase through metaphase and then transferring to the spindle midzone and midbody from anaphase through cytokinesis. Colocalized with gamma tubulin in the mid-body.,subunit:Interacts with TACC1. Associates with RACGAP1 during M phase. Component of the CPC at least composed of BIRC5/survivin CDCA8/borealin, INCENP and AURKB/Aurora-B. Interacts with CDCA1 and NDC80. Interacts with EVI5.,tissue specificity:High level expression seen in the thymus. It is also expressed in the spleen, lung, testis, colon, placenta and fetal liver. Expressed during S and G2/M phase and expression is up-regulated in cancer cells during M phase.,

Validation Data



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using AurB/C (Phospho-Thr236/202) Antibody



Immunohistochemistry analysis of paraffin-embedded human brain, using AurB/C (Phospho-Thr236/202) Antibody. The picture on the right is blocked with the phospho peptide.

Contact information

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Please scan the QR code to access additional product information: **ARK-2/3 (Phospho Thr236/202) Rabbit pAb**