AURKA Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	AURKA, Monoclonal Antibody
Full Product Name	AURKA Mouse mAb
Product Gene Name	anti-AURKA antibody
Product Synonym Names	AIK; ARK1; AURA; BTAK; STK6; STK7; STK15; AURORA2; MGC34538; AURKA
Clonality	Monoclonal
Isotype	IgG1
Clone Number	4G10
Host	Mouse
Species Reactivity	Human, Monkey, Rat
Form/Format	Ascitic fluid containing 0.03% Sodium Azide.
Purity/Purification	Ascitic Fluid
Preparation and Storage	Store at 4 degree C short term. Store at -20 degree C long term. Avoid freeze/thaw cycle.
Molecular Weight	48kDa
OMIM	603072
3D Structure	ModBase 3D Structure for O14965
Immunogen	Purified recombinant fragment of human AURKA expressed in E. Coli.
Cellular Localization	Cell Projection, Cilium, Cytoplasm, Cytoskeleton, Microtubule
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-AURKA antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunocytochemistry (ICC), Flow Cytometry (FC/FACS), ELISA (EIA)
Application Notes for anti-AURKA antibody	WB: 1:500-1:2000 IHC: 1:200-1:1000 ELISA: 1:10000
Related Product Information for anti-AURKA antibody	Aurora A plays 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. Aurora A plays a key role during tumor development and progression and is overexpressed in many human cancers including breast, ovarian and colorectal. Aurora A is viewed as a potential target for anticancer drug treatment. 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.
Other Notes	Small volumes of anti-AURKA antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for AURKA purchase	MBS8538738 is an antibody targeting AURKA. Also known as AURKA Mouse mAb. Reactive in Human, Monkey, Rat. Host: Mouse.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for AURKA. It may not necessarily be applicable to this product.

NCBI GI #	38327562
NCBI GeneID	6790
NCBI Accession #	NP_003591.2
UniProt Primary Accession #	O14965
UniProt Related Accession #	O14965
GenBank Nucleotide #	NP_003591.2
NCBI Official Full Name	aurora kinase A
NCBI Official Synonym Full Names	aurora kinase A
NCBI Official Symbol	AURKA
NCBI Official Synonym Symbols	AIK; ARK1; AURA; BTAK; STK6; STK7; STK15; PPP1R47
UniProt Protein Name	Aurora kinase A
UniProt Synonym Protein Names	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
Protein Family	Aurora kinase
UniProt Gene Name	AURKA
UniProt Synonym Gene Names	AIK; AIRK1; ARK1; AURA; AYK1; BTAK; IAK1; STK15; STK6; ARK-1; Aurora-related kinase 1; hARK1
UniProt Entry Name	AURKA_HUMAN
NCBI Protein Information	aurora kinase A
NCBI Summary for AURKA	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]

UniProt Comments for AURKA	AurA: a member of the AUR family of kinases. A cell cycle-regulated serine/threonine protein kinase that is overexpressed in many tumor cell lines. Regulated by phosphorylation-dependent proteasomal degradation. Localized to mitotic centrosomes and spindle microtubules and is required for centrosome maturation. Loss of Aurora A leads to defective mitotic spindles and gross errors in chromosome segregation. Required for centrosome duplication and chromosome segregation. Overexpression in culture drives transformation and aneuploidy, and negatively regulates p53. Amplified or overexpressed in many tumors or cell lines. Found as a skin tumor susceptibility gene in mouse, and a human SNP in a degradation domain is weakly cancer-associated and undergoes allele-specific amplification. Inhibitors: VX-680, ZM447439, Hesperadin, SNS-595. Protein type: Protein kinase, Other; Kinase, protein; Oncoprotein; EC 2.7.11.1; Protein kinase, Ser/Thr (non-receptor); Other group; AUR family Chromosomal Location of Human Ortholog: 20q13 Cellular Component: germinal vesicle; centrosome; pronucleus; spindle pole centrosome; cytosol; microtubule cytoskeleton; axon hillock; perinuclear region of cytoplasm; spindle microtubule; spindle; spindle midzone; midbody; nucleus; condensed nuclear chromosome, pericentric region Molecular Function: protein serine/threonine kinase activity; protein binding; ubiquitin protein ligase binding; protein serine/threonine/tyrosine kinase activity; histone serine kinase activity; protein kinase binding; ATP binding; protein kinase activity Biological Process: spindle stabilization; mitosis; regulation of centrosome cycle; positive regulation of mitosis; protein amino acid autophosphorylation; regulation of protein stability; regulation of cytokinesis; protein amino acid phosphorylation; mitotic centrosome separation; mitotic spindle organization and biogenesis; centrosome localization; anaphase-promoting complex-dependent proteasomal ubiquitin-dependent protein catabolic process; cell division; positive regulation of proteasomal ubiquitin-dependent protein catabolic process; mitotic cell cycle; G2/M transition of mitotic cell cycle; negative regulation of protein binding; spindle assembly involved in female meiosis I; negative regulation of apoptosis; anterior/posterior axis specification Disease: Colorectal Cancer
Research Articles on AURKA	**1.** AURKA acting as an effective biomarker for BC detection and prognosis, as well as therapeutic target
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