AURKA siRNA – Aurora Kinase A (Human)

PRODUCT OVERVIEW

Product Name	AURKA, siRNA
Full Product Name	AURKA siRNA (Human)
Product Gene Name	AURKA sirna
Product Synonym Names	AIK; AIRK1; ARK1; AURA; AYK1; BTAK; IAK1; STK15; STK6; Aurora kinase A; 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
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	AURKA siRNA (Human) is a target-specific 19-23 nt siRNA oligo duplexes designed to knock down gene expression.
Preparation and Storage	Shipped at 4 degree C. Store at -20 degree C for one year.
Molecular Weight	45,809 Da
OMIM	603072
3D Structure	ModBase 3D Structure for O14965
Negative Control	siRNA Negative Control (Catalog# MBS8241404) is a non-targeting 21 nt siRNA recommended as a negative control for experiments using targeted siRNA transfection.
Quality Control	Oligonucleotide synthesis is monitored base by base through trityl analysis to ensure appropriate coupling efficiency. The oligo is subsequently purified by affinity-solid phase extraction. The annealed RNA duplex is further analyzed by mass spectrometry to verify the exact composition of the duplex. Each lot is compared to the previous lot by mass spectrometry to ensure maximum lot-to-lot consistency.
Directions for Use	We recommends transfection with 100 nM siRNA 48 to 72 hours prior to cell lysis. Before resuspending, briefly centrifuge the tube to ensure the lyophilized siRNA is at the bottom of the tube. Resuspend the siRNA oligos to an appropriate concentration with DEPC water. For each vial, suitable for 250 transfections in 24 well plate (20 pmol for each well).
Components	We offer pre-designed sets of 3 different target-specific siRNA oligo duplexes of human AURKA gene. Each vial contains 5 nmol of lyophilized siRNA. The duplexes can be transfected individually or pooled together to achieve knockdown of the target gene, which is most commonly assessed by qPCR or western blot. Our siRNA oligos are also chemically modified (2'-OMe) at no extra charge for increased stability and enhanced knockdown in vitro and in vivo.
Applications Tested/Suitable for AURKA sirna	RNA Interference (RNAi)
Related Product Information for AURKA sirna	MBS8232838 is an siRNA targeting AURKA. Also known as AURKA siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit AURKA expression using RNA interference
Other Notes	Small volumes of AURKA sirna 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.

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 Secondary Accession #	O60445; O75873; Q9BQD6; Q9UPG5; E1P5F9
UniProt Related Accession #	O14965
GenBank Nucleotide #	NM_003600.2
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; AURORA2; 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: Oncoprotein; EC 2.7.11.1; Protein kinase, Other; Kinase, protein; 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; spindle microtubule; perinuclear region of cytoplasm; spindle; midbody; spindle midzone; 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: mitosis; spindle stabilization; regulation of centrosome cycle; positive regulation of mitosis; protein amino acid autophosphorylation; regulation of protein stability; protein amino acid phosphorylation; regulation of cytokinesis; mitotic spindle organization and biogenesis; mitotic centrosome separation; centrosome localization; cell division; anaphase-promoting complex-dependent proteasomal ubiquitin-dependent protein catabolic process; 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 regulates JAK2-STAT3 activity in human gastric and esophageal cancers
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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