Recombinant Mouse Aurka Protein, Myc/DDK-tagged

Cat. No. Aurka-1788M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length aurora kinase A (cDNA clone MGC:5804 IMAGE:3590706), complete cds, with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	Mitotic serine/threonine kinase that contributes to the regulation of cell cycle progression. Associates with the centrosome and the spindle microtubules during mitosis and plays a critical role in various mitotic events including the establishment of mitotic spindle, centrosome duplication, centrosome separation as well as maturation, chromosomal alignment, spindle assembly checkpoint, and cytokinesis. Required for normal spindle positioning during mitosis and for the localization of NUMA1 and DCTN1 to the cell cortex during metaphase. Required for initial activation of CDK1 at centrosomes. Phosphorylates numerous target proteins, including ARHGEF2, BORA, BRCA1, CDC25B, DLGP5, HDAC6, KIF2A, LATS2, NDEL1, PARD3, PPP1R2, PLK1, RASSF1, TACC3, p53/TP53 and TPX2. Regulates KIF2A tubulin depolymerase activity. Required for normal axon formation. Plays a role in microtubule remodeling during neurite extension. Important for microtubule formation and/or stabilization. Also acts as a key regulatory component of the p53/TP53 pathway, and particularly the checkpoint-response pathways critical for oncogenic transformation of cells, by phosphorylating and stabilizing p53/TP53. Phosphorylates its own inhibitors, the protein phosphatase type 1 (PP1) isoforms, to inhibit their activity. Necessary for

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	proper cilia disassembly prior to mitosis. Regulates protein levels of the anti-apoptosis protein BIRC5 by suppressing the expression of the SCF(FBXL7) E3 ubiquitin-protein ligase substrate adapter FBXL7 through the phosphorylation of the transcription factor FOXP1.
Molecular Mass	44.8 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 μg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Aurka aurora kinase A [Mus musculus (house mouse)]
Official Symbol	Aurka
Synonyms	Aurka; aurora kinase A; I; AI; Ar; Au; IA; Ayk; IAK; Stk; Ark1; Ayk1; IAK1; Stk6; AIRK1; ARK-1; AU019385; AW539821; Aurora-A; aurora kinase A; aurora 2; aurora A; aurora family kinase 1; aurora-related kinase 1; aurora/IPL1-related kinase 1; ipl1- and aurora-related kinase 1; serine/threonine kinase 6; serine/threonine-protein kinase 6; serine/threonine-protein kinase Ayk1; serine/threonine-protein kinase aurora-A; EC 2.7.11.1

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Gene ID	20878
mRNA Refseq	NM_011497
Protein Refseq	NP_035627
UniProt ID	P97477

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