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Product datasheet for MC227469

Aurka (NM_001291185) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aurka (NM_001291185) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Aurka
Synonyms:	AIRK1; ARK-1; Ark1; AU019385; Aurora-A; AW539821; Ayk1; IAK; IAK1; Stk6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

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>MC227469 representing NM_001291185
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGACAGATGTAAAGAAAACTGTGTCTCCAGGCCTGTTAAGACCACTGTTCCCTTCGGTCCGAAACGCG
TCTTGGTGACTGAGCAGATTCCGTCTCAGAACCTAGGATCTGCTAGCAGTGGCCAGGCCCAGCGGGTCCT
GTGTCCTTCTAACTCCCAGCGTGTCCCTTCACAAGCCCAGAAACTTGGAGCAGGTCAGAAGCCGGCACCA
AAGCAGTTGCCAGCTGCCAGTGTTCCTAGGCCTGTGTCCCGGCTCAATAACCCCCAGAAGAATGAGCAGC
CTGCAGCCTCCGGAAATGATTCTGAAAAGGAGCAGGCATCCTTGCAGAAGACCGAAGACACAAAAAAAAG
GCAGTGGACTTTGGAAGATTTTGACATTGGCCGCCCACTAGGAAAAGGGAAGTTTGGAAATGTCTACTTG
GCGCGGGAGAGACAAAGCAAGTTCATCCTGGCTCTGAAGGTGCTGTTTAAAACACAGCTGGAGAAGGCGA
ACGTGGAGCACCAGCTTCGGAGAGAGGTGGAGATCCAGTCGCACCTGCGGCACCCCAACATCCTCAGGCT
GTATGGCTATTTCCATGACGCCACCCGAGTTTATCTGATTCTAGAATATGCGCCCCTTGGAACAGTCTAT
AGAGAGCTCCAAAAACTCTCCAAGTTTGACGAGCAGAGAACAGCTACTTACATCACTGAGTTGGCAAACG
CTCTGTCTTACTGTCATTCAAAGAGAGTGATCCACAGAGACATTAAGCCAGAGAACTTACTGCTTGGCTC
AAACGGAGAGTTGAAGATTGCAGACTTCGGGTGGTCGGTGCATGCTCCATCTTCCAGGAGAACCACAATG
TGTGGCACCCTGGACTACCTGCCCCCAGAGATGATTGAAGGCCGGATGCATGACGAGAAGGTGGACCTCT
GGAGCCTCGGCGTTCTCTGCTATGAGTTCCTAGTGGGGATGCCTCCTTTCGAGGCACACACGTACCAGGA
GACTTACAGAAGGATATCTCGGGTTGAATTCACTTTCCCTGACTTTGTGACAGAGGGAGCCAGGGACCTC
ATTTCAAGACTGTTAAAACACAACGCAAGCCAAAGGCTAACACTAGCGGAAGTCCTTGAGCACCCTTGGA
TCAAAGCTAATTCTTCCAAACCTCCAACTGGCCACACTAGCAAAGAGCCAACCAGCAAATCATCTTAG

ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGA
TTACAAGGATGACGACGATAAGGTTTAA
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Restriction Sites:	SgfI-NotI
ACCN:	NM_001291185
Insert Size:	1188 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_001291185.1, NP_001278114.1
RefSeq Size:	1897 bp
RefSeq ORF:	1188 bp
Locus ID:	20878
UniProt ID:	P97477
Cytogenetics:	2 94.84 cM

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Gene Summary: 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 (By similarity). 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 proper cilia disassembly prior to mitosis.[UniProtKB/Swiss-Prot Function]
Transcript Variant: This variant (2) uses an alternate splice site in its 5' terminal exon, and it thus differs in its 5' UTR and initiates translation at a downstream in-frame start codon, compared to variant 1. The encoded isoform (b) is shorter at the N-terminus, compared to isoform a.

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