

Product datasheet for MR206182

Aurka (BC005425) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aurka (BC005425) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Aurka
Synonyms:	IAK, Ark1, Ayk1, AIRK1, Aurora-A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR206182 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGACAGATGTAAGAAAACTGTGTCTCCAGGCCTGTTAAGACCACTGTTCCCTTCGGTCCGAAACGG
TCTTGGTACTGAGCAGATTCGGTCTCAGAACCTAGGATCTGCTAGCAGTGGCCAGGCCAGCGGTCT
GTGTCTTCTAACTCTCAGCGTGTCCCTTCACAAGCCCAGAACTTGGAGCAGGTGAGAAGCCGGCACCA
AAGCAGTTGCCAGCTGCCAGTGTCTCCGGCTGTGTCCCGCTCAATAACCCCCAGAAGAATGAGCAGC
CTGCAGCTCCGAAATGATTCTGAAAAGGAGCAGGCATCCTTGCAGAAGACCGAAGACACAAAAAAG
GCAGTGGACTTTGGAAGATTTTGACATTGGCCGCCACTAGGAAAAGGGAAGTTTGGAAATGTCTACTTG
GCGCGGGAGAGACAAAGCAAGTTCATCCTGGCTCTGAAGGTGCTGTTAAAACACAGCTGGAGAAGGCGA
ACGTGGAGCACCAGCTTCGGAGAGAGGTGGAGATCCAGTCGCACCTGCGGCACCCCAACATCCTCAGGCT
GTATGGCTATTTCCATGACGCCACCCGAGTTTATCTGATTCTAGAATATGCGCCCTTGGAAACAGTCTAT
AGAGAGCTCCAAAACTCTCAAGTTTACGAGCAGAGAACAGCTACTTACATCACTGAGTTGGCAAACG
CTCTGTCTTACTGTCATTCAAAGAGAGTGATCCACAGAGACATTAAGCCAGAGAATTAAGTCTGGCTC
AAACGGAGAGTTGAAGATTGCAGACTTCGGGTGGTGGTGCATGCTCCATCTTCCAGGAGAACCACAATG
TGTGGCACCTGGACTACCTGCCCCAGAGATGATTGAAGCGGATGCATGACGAGAAGGTGGACCTCT
GGAGCCTGGGCGTTCTCTGCTATGAGTTCTAGTGGGATGCCTCCTTTTCGAGGCACACAGTACCAGGA
GACTTACAGAAGGATATCTCGGTTGAATTCATTTCCCTGACTTTGTGACAGAGGGAGCCAGGGACCTC
ATTTCAAGACTGTTAAAACACAACGCAAGCCAAAGGCTAACACTAGCGGAAGTCTTTCAGCACCTTGG
TCAAAGCTAATCTTCAAACCTCCAATGGCCACACTAGCAAAGAGCCAACCAGCAAATCATCT

AC**GGGCCGCT**CGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGA
TTACAAGGATGACGACGATAAGGTTTAA



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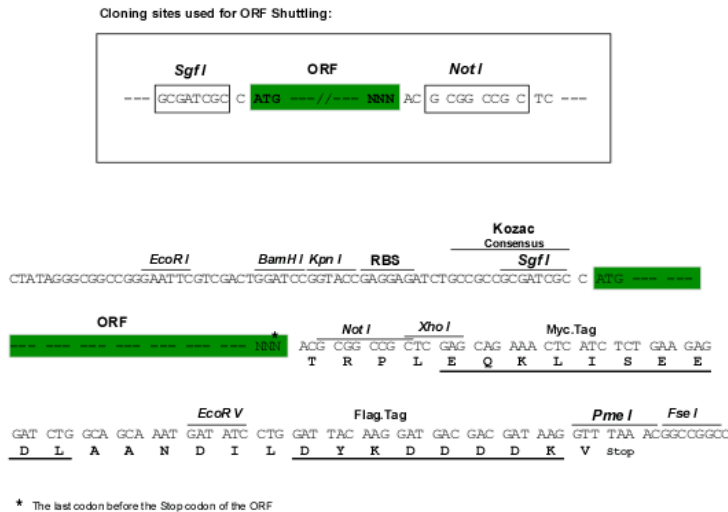
Protein Sequence: >MR206182 protein sequence
Red=Cloning site Green=Tags(s)

MDRCKENCVSRPVKTTVPFGPKRVLVTEQIPSONLGSASSGQAQRVLCPSNSQRVPSQAQKL GAGQK PAP
 KQLPAASVPRPVSR LNNPQKNEQPAASGNDSEKEQASLQKTEDTKKRQWLEDFD IGRPLGKGKFGNVYL
 ARERQSKFILALKVLFK TQLEKANVEHQLRREVEIQSHLRHPN IRLRYGFHDATRVYLI LEYAPLGTVY
 RELQKLSKFDEQRTATYITELANALSYCHSKRVIHRDIKPENLL LGSNGELKIADFGWSVHAPSSRRTTM
 CGTLDYLPPEMIEGRMHDEKVDLWSLGVLCYEFVLVGMPPFEAHTYQET YRRI SRVEFTFPDFVTEGARDL
 ISRL LKHNASQRLTLAEVLEHPWIKANSSKPPTGHTSKEPTSKSS

TRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-NotI

Cloning Scheme:



ACCN: BC005425

ORF Size: 1185 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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: [BC005425](#), [AAH05425](#)

RefSeq Size: 1850 bp

RefSeq ORF: 1187 bp

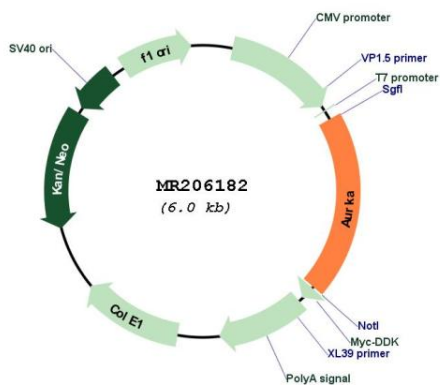
Locus ID: 20878

Cytogenetics: 2 94.84 cM

MW: 44.8 kDa

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]

Product images:



Circular map for MR206182