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Product datasheet for MC220657

Dapk1 (BC060161) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dapk1 (BC060161) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Dapk1
Synonyms:	D13Ucla1; DAP-Kinase
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

View online »

Fully Sequenced ORF:

>BC060161
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACTGTGTTCAGGCAGGAAAACGTGGACGACTACTACGACACCGGCGAGGAACTGGGCAGTGGACAGT
TCGCAGTTGTGAAGAAATGTCGTGAGAAAAGTACCGGTCTTCAGTATGCGGCCAAGTTCATCAAGAAAAG
GAGGACCAAGTCCAGCCGGCGGGGCGTGAGCCGGGAGGACATCGAGCGGGAGGTCAGCATCCTGAAGGAG
ATCCGGCACCCAAATGTCATCACCCTGCATGAGGTCTATGAGAACAAGACAGATGTCATTCTGATCCTGG
AGCTTGTTGCAGGAGGTGAGCTGTTTGACTTCCTGGCTGAGAAGGAATCTCTGACTGAAGAGGAGGCAAC
GGAATTCCTTAAGCAGATTCTCAGCGGCGTTTACTACCTGCACTCACTGCAGATCGCTCACTTTGACCTG
AAGCCGGAAAACATAATGCTTCTGGATAGAAATGTGCCCAAACCTCGGATCAAGATCATAGACTTTGGCT
TGGCCCATAAAATTGACTTTGGAAATGAATTCAAAAACATATTTGGGACACCAGAGTTTGTGGCTCCGGA
GATAGTCAACTATGAGCCCCTGGGTCTTGAGGCAGATATGTGGAGCATCGGGGTAATAACCTATATCCTC
CTAAGTGGGGCCTCCCCTTTTCTTGGAGACACCAAGCAAGAAACATTAGCGAATGTGTCCGCTGTCAACT
ACGACTTTGAGGAGGAATTCTTCCGGAACACCAGTACCCTTGCCAAAGATTTCATCAGAAGACTGCTGGT
CAAGGATCCAAAGAAGAGGATGACAATCCAGGACAGTTTGCAGCACCCCTGGATCAAGCCTAAAGACACC
CAACAAGCACTTAGTCGAAAAGCCTCAGCAGTAAACATGGAGAAATTCAAGAAGTTTGCAGCTCGGAAAA
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CATGAGTGTCGCCAGGAGTGATGATACTCTGGATGAGGAAGACTCCTTTGTGATGAAAGCCATCATCCAT
GCCATCAATGATGACAACGTACCCGGCCTGCAGCATCTCCTGGGCTCCTTGTCCAGCTATGACGTCAACC
AGCCCAACAAGCATGGGACACCTCCATTACTGATTGCCGCAGGCTGTGGCAACATCCAGATGTTACAGTT
ACTCATAAAACGAGGCTCAAGGATTGACGTCCAGGATAAGGGAGGATCCAATGCCATCTACTGGGCCTCT
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CTGGAGAGACAGCTCTTCACGTGGCAGCCCGCTATGGCCATGCAGATGTGGTTCAACTACTGTGCAGTTT
TGGCTCTAATCCTGATTTCCAGGACAAGGAAGAGGAAACCCCCCTGCACTGTGCTGCCTGGCATGGCTAT
TACTCCGTGGCTAAAGCTCTTTGTGAAGTTGGCTGCAACGTGAATATCAAGAATCGGGAGGGAGAGACCC
CATTGCTGACGGCGTCTGCCAGGGGCTATCATGACATTGTGGAGTGTCTGGCTGAACATGGAGCTGACTT
GAATGCTTCTGACAAGGATGGACACATCGCTCTTCATCTTGCTGTGAGGCGTTGTCAGATGGAAGTCATC
AAGACCCTCCTTGGCCATGGGTCCTTTGTGGATTTCCAGGACAGGCATGGCAACACACCCCTGCACGTGG
CCTGCAAAGATGGAAGCGCACCTATCGTGGTGGCCCTCTGTGAAGCCAGCTGCAATCTGGACATCTCAAA
CAAGTATGGTCGGACTCCTCTCCACCTTGCAGCCAACAACGGGATCCTAGATGTGGTCCGCTACCTCTGT
TTGATGGGCGCCAATGTGGAGGCTCTAACCTCGGATGGAAAGACGGCCGAGGACCTCGCCAAGGCAGAAC
AGCACGAGCATGTGGCAGGGCTCCTGGCAAGACTGCGGAAGGACACACACCGAGGACTCTTCATCCAGCA
ACTCCGACCCACCCAGAATCTCCAGCCCAGAATCAAGCTCAAACTGTTTGGCCATTCGGGATCAGGGAAA
TCCACCCTGGTGGAATCTCTCAAGTGTGGGCTGTTAAGGAGTTTCTTCAGAAGGCGCCGGCCCAGACTAT
CCTCTACCAACTCCACCCGCTTCCCACCGTCACCCCTGGCTGCTAAGCCAACAGTCTCAGTGAGCATTAA
CAACCTGTACCCCGGCTGTGAGAACGTGAGCGTAAGGAGCCGCAGCATGATGTTCGAGCCGGGCCTCACC
AAAGGGATGCTGGAAGTGTTCGTGGCTCCGTCTCACCACCTCCACTGCTCGACTGATGACCAGTCCACCA
AAGCCATCGACATCCAGAATGCTTATTTGAACGGAGTTGGTGATTTCAGTGTGTGGGAGTTCTCTGGAAA
CCCTGTGTACTTCTGTTGCTATGACTACTTTGCTGCCAACGACCCCACGTCCATCCACATCATCGTTTTC
AGTCTCGAAGAACCCTATGAGATCCAGCTGAACCAAGTGATTTTCTGGCTCAGTTTCCTGAAGTCTCTGG
TCCCAGTTGAAGAACCCATAGCATTTGGAGGCAAGCTGAAGAACCCTCTCCGAGTTGTCCTGGTGGCAAC
ACATGCTGACATCATGAACATCCCTCGGCCTGCTGGAGGCGAGTTTGGATATGACTAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCTGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: BC060161

Insert Size:	2718 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).
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:	BC060161, AAH60161
RefSeq Size:	5056 bp
RefSeq ORF:	2717 bp
Locus ID:	69635
Cytogenetics:	13 32.53 cM
Gene Summary:	Calcium/calmodulin-dependent serine/threonine kinase involved in multiple cellular signaling pathways that trigger cell survival, apoptosis, and autophagy. Regulates both type I apoptotic and type II autophagic cell deaths signal, depending on the cellular setting. The former is caspase-dependent, while the latter is caspase-independent and is characterized by the accumulation of autophagic vesicles. Phosphorylates PIN1 resulting in inhibition of its catalytic activity, nuclear localization, and cellular function. Phosphorylates TPM1, enhancing stress fiber formation in endothelial cells. Phosphorylates STX1A and significantly decreases its binding to STXBP1. Phosphorylates PRKD1 and regulates JNK signaling by binding and activating PRKD1 under oxidative stress. Phosphorylates BECN1, reducing its interaction with BCL2 and BCL2L1 and promoting the induction of autophagy. Phosphorylates TSC2, disrupting the TSC1-TSC2 complex and stimulating mTORC1 activity in a growth factor-dependent pathway. Phosphorylates RPS6, MYL9 and DAPK3 (By similarity). Acts as a signaling amplifier of NMDA receptors at extrasynaptic sites for mediating brain damage in stroke. Cerebral ischemia recruits DAPK1 into the NMDA receptor complex and it phosphorylates GRINB at Ser-1303 inducing injurious Ca(2+) influx through NMDA receptor channels, resulting in an irreversible neuronal death. Required together with DAPK3 for phosphorylation of RPL13A upon interferon-gamma activation which is causing RPL13A involvement in transcript-selective translation inhibition.[UniProtKB/Swiss-Prot Function]