

Product datasheet for **RC200069**

ZAK (MAP3K20) (NM_133646) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ZAK (MAP3K20) (NM_133646) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ZAK
Synonyms:	AZK; CNM6; MLK7; mlklak; MLT; MLTK; MLTKalpha; MLTKbeta; MRK; pk; SFMMP; ZAK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC200069 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCGCTCTCGGTGCCTCCTTTGTGCAAATTAATTTGATGACTTGCAGTTTTTTGAAAACGCGGTG
 GAGGAAGTTTTGGGAGTGTATCGAGCCAATGGATATCACAGGACAAGGAGGTGGCTGTAAAGAAGCT
 CCTCAAAATAGAGAAAGAGGCAGAAATACTCAGTGCCTCAGTCACAGAAACATCATCCAGTTTTATGGA
 GTAATTCTTGAACCTCCCAACTATGGCATTGTCACAGAATATGCTTCTCTGGGATCACTCTATGATTACA
 TTAACAGTAACAGAAGTGAGGAGATGGATATGGATCACATTATGACCTGGGCCACTGATGTAGCCAAAGG
 AATGCATTATTTACATATGGAGGCTCCTGTCAAGGTGATTCACAGAGACCTCAAGCAAGAAACGTTGTT
 ATAGCTGCTGATGGAGTATTGAAGATCTGTGACTTTGGTGCCTCTCGGTTCCATAACCATAACAACACA
 TGTCCTTGGTTGGAACCTTCCCATGGATGGCTCCAGAAGTTATCCAGAGTCTCCCTGTGCAGAACTTG
 TGACACATATTCCTATGGTGTGGTCTCTGGGAGATGCTAACAAGGGAGGTCCCTTTAAAGGTTTGGAA
 GGATTACAAGTAGCTTGGCTTGTAGTGGAAAAAACGAGAGATTAACCATTCCAAGCAGTTGCCCCAGAA
 GTTTTGCTGAACTGTTACATCAGTGTGGGAAGCTGATGCCAAGAAACGGCCATCATTCAAGCAAATCAT
 TTCAATCTGGAGTCCATGTCAAATGACACGAGCCTTCTGACAAGTGTAACTATTCTACACAACAAG
 GCGGAGTGGAGGTGCGAAATTGAGGCAACTCTTGAGAGGCTAAAGAACTAGAGCGTGATCTCAGCTTTA
 AGGAGCAGGAGCTTAAAGAACGAGAAAGACGTTTAAAGATGTGGGAGCAAAGCTGACAGAGCAGTCCAA
 CACCCCGCTTCTTGCCTCTTGTGCAAGAATGTCTGAGGAGTCTTACTTTGAATCTAAAACAGAGGAG
 TCAAACAGTGCAGAGATGCATGTCAGATCACAGCAACAAGTAACGGGGAGGGCCATGGCATGAACCCAA
 GTCTGCAGGCCATGATGCTGATGGGCTTTGGGGATATCTTCTCAATGAACAAAGCAGGAGCTGTGATGCA
 TTCTGGGATGCAGATAAACATGCAAGCCAAGCAGAATTCTTCCAAAACCATCTAAGAGAAGGGGGAAG
 AAAGTCAACATGGCTCTGGGTTCAGTATTTGACTTGTGCAAGGTGACGATGATGATGATGATGACG
 GTGAGGAGGAGATAATGACATGGATAATAGTAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC200069 protein sequence
 Red=Cloning site Green=Tags(s)

MSSLGASFVQIKFDDLQFFENCSSGSGSVYRAKVISQDKEVAVKLLKIEKEAELSVLSHRNIIQFYG
 VILEPPNYGIVTEYASLGSLYDYINSNRSEEMDMHIMTWATDVAKGMHYLHMEAPVKVIHRDLKSRNVV
 IAADGVLIKICDFGASRFHNHTHMSLVGTFPWWAPEVIQSLPVSETCDTYSYGVVLWEMLTREVFPKGL
 GLQVAVLVVEKNERLTIPSSCPRSFAELLHQWEADAKKRPSFKQIISILESMSNDTSLPDKCNSFLHNK
 AEWRCIEATLERLKKLERDLDFKEQELKERERRLKMWEQKLEQSNTPLLLPLAARMSEESYFESKTEE
 SNSAEMSCQITATSNGEGHGMNPSLQAMMLMGFGDIFSMNKAGAVMHSQMQINMQAKQNSSKTTSKRRGK
 KVNMLGFSDFDLSEGDDDDDDGEEEDNDMDNSE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6401_b09.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_133646

ORF Size: 1365 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: [NM_133646.3](#)

RefSeq Size: 7194 bp

RefSeq ORF: 1368 bp

Locus ID: 51776

UniProt ID: [Q9NYL2](#)

Cytogenetics: 2q31.1

Domains: pkinase, TyrKc, S_TKc

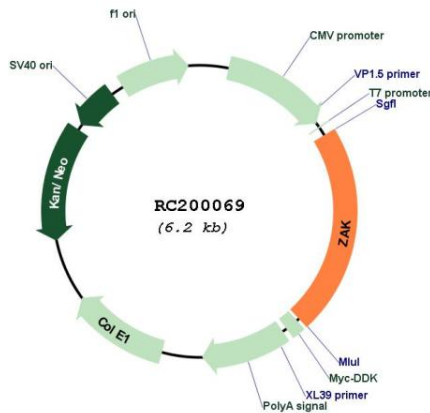
Protein Families: Druggable Genome, Protein Kinase

Protein Pathways: MAPK signaling pathway, Tight junction

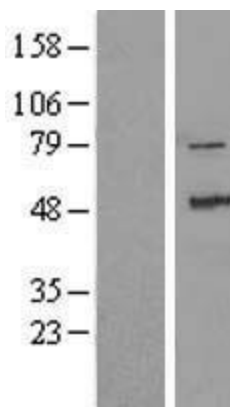
MW: 51.6 kDa

Gene Summary: This gene is a member of the MAPKKK family of signal transduction molecules and encodes a protein with an N-terminal kinase catalytic domain, followed by a leucine zipper motif and a sterile-alpha motif (SAM). This magnesium-binding protein forms homodimers and is located in the cytoplasm. The protein mediates gamma radiation signaling leading to cell cycle arrest and activity of this protein plays a role in cell cycle checkpoint regulation in cells. The protein also has pro-apoptotic activity. Alternate transcriptional splice variants, encoding different isoforms, have been characterized. [provided by RefSeq, Jul 2008]

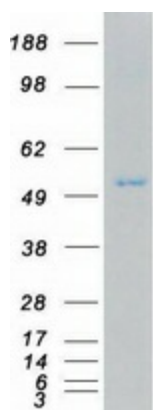
Product images:



Circular map for RC200069



Western blot validation of overexpression lysate (Cat# [LY408752]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200069 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MAP3K20 protein (Cat# [TP300069]). The protein was produced from HEK293T cells transfected with MAP3K20 cDNA clone (Cat# RC200069) using MegaTran 2.0 (Cat# [TT210002]).