

Product datasheet for **SC320193**

ZAK (MAP3K20) (NM_133646) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ZAK (MAP3K20) (NM_133646) Human Untagged Clone
Tag:	Tag Free
Symbol:	ZAK
Synonyms:	AZK; CNM6; MLK7; mlklak; MLT; MLTK; MLTKalpha; MLTKbeta; MRK; pk; SFMMP; ZAK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_133646.2
 GCCGCGCGGGCCGCTGTCGTCCCAACCCCGCCGCCCTCGTCGCGCGGGGCTCCGCG
 CCCCCGGCTGCTGCTCACGCCCCCGGGGAGCCAGATTTTGTGGAAGTATAATACTTTG
 TCATTATGAGATGTCGTCTCTCGGTGCCTCTTTGTGCAAATTAATTTGATGACTTGCA
 GTTTTTGAAAACGCGGTGGAGAAAGTTTGGGAGTGTTATCGAGCCAATGGATATC
 ACAGGACAAGGAGGTGGCTGTAAGAAGCTCCTCAAAATAGAGAAAGAGGCAGAAATC
 CAGTGTCTCAGTCACAGAAACATCATCCAGTTTATGGAGTAATTCTTGAACCTCCAA
 CTATGGCATTGTACAGAAATATGCTTCTCTGGGATCACTCTATGATTACATTAACAGTAA
 CAGAAGTGAGGAGATGGATATGGATCACATTATGACCTGGGCCACTGATGTAGCCAAAGG
 AATGCATTATTTACATATGGAGGCTCCTGTCAAGGTGATTACAGAGACCTCAAGTCAAG
 AAACGTTGTTATAGCTGCTGATGGAGTATTGAAGATCTGTGACTTTGGTGCCTCTCGGT
 CCATAACCATAACAACACATATGCTTGGTTGGAACCTTCCCATGGATGGCTCCAGAAAGT
 TATCCAGAGTCTCCCTGTGTCAGAAACTTGTGACACATATTCCTATGGTGTGGTTCTCTG
 GGAGATGCTAACAAAGGAGTCCCCTTTAAAGGTTTGAAGGATTACAAGTAGCTTGGCT
 TGTAGTGGAAAAAACGAGAGATTAACCATTCCAAGCAGTTGCCCCAGAAGTTTTGCTGA
 ACTGTTACATCAGTGTTGGGAAGCTGATGCCAAGAAACGCCATATTCAAGCAAATCAT
 TTCAATCCTGGAGTCCATGTCAAATGACACGAGCCTTCTGACAAGTGTAACTATTCTCT
 ACACAACAAGGCGGAGTGGAGGTGCGAAATTGAGGCAACTCTTGAGAGGCTAAAGAACT
 AGAGCGTGATCTCAGCTTTAAGGAGCAGGAGCTTAAAGAACGAGAAAGACGTTTAAAGAT
 GTGGGAGCAAAAGCTGACAGAGCAGTCCAACACCCCGCTTCTCTTGCCTTTGCTGCAAG
 AATGTCTGAGGAGTCTTACTTTGAATCTAAAACAGAGGAGTCAAACAGTGCAGAGATGTC
 ATGTCAGATCACAGCAACAAGTAACGGGGAGGGCCATGGCATGAACCCAAGTCTGCAGGC
 CATGATGCTGATGGGCTTTGGGGATATCTTCTCAATGAACAAAGCAGGAGCTGTGATGCA
 TTCTGGGATGCAGATAAACATGCAAGCCAAGCAGAATTCTTCCAAAACCATCTAAGAG
 AAGGGGAAGAAAGTCAACATGGCTCTGGGGTTCAGTGATTTTGACTTGTGAGAAGTGA
 CGATGATGATGATGATGACGGTGAGGAGGAGGATAATGACATGGATAATAGTGAATGAAA
 GCAGAAAGCAAAGTAATAAAATCACAAATGTTTGGAAAACACAAAAAAAAAAAAAAAAAA
 AA

Restriction Sites: Please inquire

ACCN: NM_133646

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: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_133646.2](#), [NP_598407.1](#)

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

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]
Transcript Variant: This variant (2) lacks several exons in the coding region and contains a different 3' exon compared to variant 1. The resulting protein (isoform 2, also referred to as MRK-beta, MLTK-beta and MLK7) is shorter and has a distinct C-terminus compared to isoform 1.