

Product datasheet for **RG221970**

ZAK (MAP3K20) (NM_016653) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ZAK (MAP3K20) (NM_016653) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ZAK
Synonyms:	AZK; CNM6; MLK7; mlklak; MLT; MLTK; MLTKalpha; MLTKbeta; MRK; pk; SFMMP; ZAK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>RG221970 representing NM_016653
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGC**

ATGTCGCTCTCGGTGCCTCCTTTGTGCAAATTAATTTGATGACTTGCAGTTTTTTGAAAACGCGGTG
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 CCTCAAAATAGAGAAAGAGGCAGAAATACTCAGTGTCTCAGTCACAGAAACATCATCCAGTTTTATGGA
 GTAATTTCTGAACCTCCCAACTATGGCATTGTACAGAAATATGCTTCTCTGGGATCACTCTATGATTACA
 TTAACAGTAACAGAAGTGAGGAGATGGATATGGATCACATTATGACCTGGGCCACTGATGTAGCCAAAGG
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 GTGGAATACCGGAAAAAGCCCCACAGGCCATCTCCCGCCAAAACCAATAAAGAGAGAGCCAGAGGGGACC
 ACCGTGGATGGAGAACTTT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG221970 representing NM_016653
 Red=Cloning site Green=Tags(s)

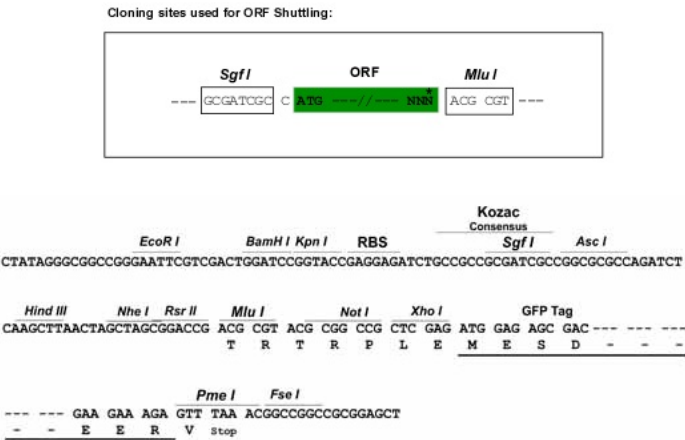
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 NQSRSSSPTQYGLTKNFSSLHLNSRDSGFSSGNTDTSSERGRYSRDRSNKYGRGISLNSSPRGRYSGKS
 QHSTPSRGRYPGKFYRVSQSALNPHQSPDFKRSPRDLHQPNITPGMPLHPETDSRASEEDSKVSEGGWTK
 VEYRKKPHRPSPAKTNKERARGDHRGWRNF

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfi-MluI

Cloning Scheme:



ACCN: NM_016653

ORF Size: 2400 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_016653.3](#)

RefSeq Size: 3767 bp

RefSeq ORF: 2403 bp

Locus ID: 51776

UniProt ID: [Q9NYL2](#)

Cytogenetics: 2q31.1

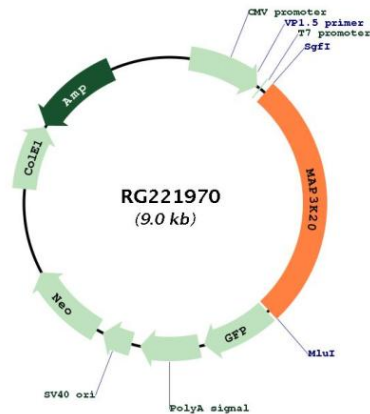
Domains: pkinase, TyrKc, SAM, S_TKc

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]

Product images:


Circular map for RG221970