

## Product datasheet for **RR216728**

### Mapk10 (NM\_001270556) Rat Tagged ORF Clone

#### Product data:

|                    |                                            |
|--------------------|--------------------------------------------|
| Product Type:      | Expression Plasmids                        |
| Product Name:      | Mapk10 (NM_001270556) Rat Tagged ORF Clone |
| Tag:               | Myc-DDK                                    |
| Symbol:            | Mapk10                                     |
| Synonyms:          | Jnk3; SAPb; SAPKC; Serk2                   |
| Vector:            | pCMV6-Entry (PS100001)                     |
| E. coli Selection: | Kanamycin (25 ug/mL)                       |
| Cell Selection:    | Neomycin                                   |



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**ORF Nucleotide Sequence:**

>RR216728 representing NM\_001270556  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAGCCTCCATTCTTATACTACTGCAGTGAACCAACCTTGGATGTGAAAATTGCCTTTTGTCCAGGGAT  
 TCGACAAACACGTGGATGTGCTTCTGTGGCCAAACATTACAACATGAGCAAAAGCAAGGTAGATAACCA  
 GTTCTACAGTGTGGAAGTGGGAGACTCAACCTTACAGTTCTAAAGCGCTACCAGAACCTGAAGCCGATC  
 GGCTCTGGGGCTCAGGAATAGTTTGTGCTGCGTATGACGCTGTCTCGACAGAAATGTGGCCATTAAGA  
 AGCTCAGCAGACCCTTCCAGAACCAAACCTCATGCCAAGAGGGCTTACCGGGAGCTGGTCTCATGAAGTG  
 TGTGAACCATAAAAAATTATTAGCTTATTAATGTCTTACACCCAGAAAACACTGGAGGAGTCCAA  
 GATGTTTACTTAGTGATGGAACCTGATGGACGCCAAGTGTGTGAGGTGATTCAGATGGAGCTGGACCAG  
 AGCGGATGTCGTAAGTGTGACAGATGCTGTGCGGCATCAAACACCTCCACTCCGCTGGGATCATCCA  
 CAGGGACTTAAACCCAGTAACATCGTAGTCAAGTCTGATTGCACACTGAAAATCCTGGACTTTGGACTG  
 GCCAGGACAGCGGCACAAAGCTTATGATGACTCCGTATGTGGTACGAGATATTACAGAGCCCGGAGG  
 TCATCCTGGGCATGGGCTACAAGGAGAAGCTGGACATATGGTCTGTGGGCTGCATCATGGGAGAAATGGT  
 TCGTCACAAAATCCTCTTTCCCGAAGGGACTATATTGACCAGTGGAAACAAAGTCATAGAGCAGCTAGGA  
 ACTCCGTGTCCAGAAATTCATGAAGAAATTCAGAGCCACCGTCAGAAACTACGTGGAGAACCGGCCAAGT  
 ATGCAGGCCTCACCTTCCCAAGCTCTTCCAGATTCCCTCTTCCAGCGGATCCGAGCACAATAAACT  
 TAAAGCCAGCCAAGCCAGGGACTTGTGTCAAAGATGTTAGTGATTGACCAGCGAAGAGGATATCGGTG  
 GATGACGCATTGCAGCATCCGTACATCAACGTTTGGTACGACCTGTGAAAGTGGAGGCGCTCCGCCTC  
 AGATATATGACAAGCAACTGGATGAAAGGGAGCACACCATCGAAGAATGGAAAGAACTCATCTACAAGGA  
 AGTAATGAACCTCAGAAGAGAAGACTAAGAACGGGCTAGTCAAAGGCCAGCCCTCACCTTCAGGTGCAGCA  
 GTGAACAGCAGTGAAGTCTCCCTCCATCCTCGTCTGTCAACGACATCTCTCCATGTCCACCGACCAGA  
 CCCTCGCATCCGACACTGACAGCAGCCTGGAAGCCTCGGCGGGACCGCTGGGTTGTTGCAGG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RR216728 representing NM\_001270556  
 Red=Cloning site Green=Tags(s)

MSLHFLYYCSEPTLDVKIAFCQGFQDKHVDVSSVAKHYNMSSKSKVDNQFYVVEVGDSTFTVLKRYQNLKPI  
 GSGAQGIVCAAYDAVLDNRVAIKKLSRPFQNTAKRAYRELVLKCVNHKNIISLLNVFPTQKTLLEEFQ  
 DVYLVMEMLDANLCQVIQMELDHERMSYLLYQMLCGIKHLHSAGIHRDLKPSNIVVKSDDLKILDFGL  
 ARTAGTSFMMPYVYVTRYRAPEVILGMGYKENVDIWSVGCIMGEMVRHKILFPGRDYIDQWNVIEQLG  
 TPCPEFMKKLQPTVRNYVENRPKYAGLTFPKLFPDSLFPADSEHNKLGKASQARDLLSKMLVIDPAKRISV  
 DDALQHPYINVWYDPAEVEAPPPQIYDKQLDEREHTIEEWKELIYKEVMNSEEKTKNGVVKGQPSPSGAA  
 VNSSESLPPSSVNDISSMSTDQTLASDTDSSLEASAGPLGCCR

**TR**TRPLEQKLI SEEDLAANDILDYKDDDDKV

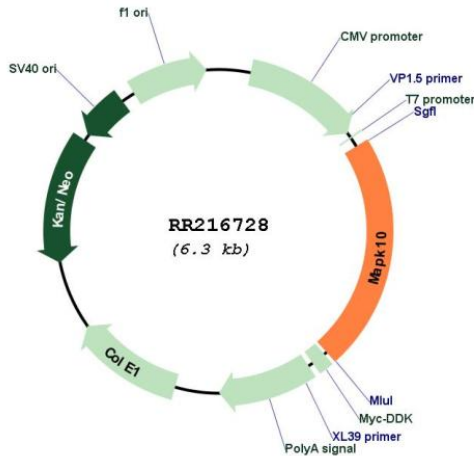
**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001270556

ORF Size: 1392 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\\_001270556.1](#), [NP\\_001257485.1](#)

**RefSeq Size:** 2759 bp

**RefSeq ORF:** 1395 bp

**Locus ID:** 25272

**Cytogenetics:** 14p22

**MW:** 52.5 kDa

**Gene Summary:** The protein encoded by this gene is a member of the MAP kinase family. MAP kinases act as integration points for multiple biochemical signals, and thus are involved in a wide variety of cellular processes, such as proliferation, differentiation, transcription regulation and development. This kinase is specifically expressed in a subset of neurons in the nervous system and is activated by threonine and tyrosine phosphorylation. Targeted deletion of this gene in mice suggests that it may have a role in stress-induced neuronal apoptosis. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. A recent study provided evidence for translational readthrough in this gene, and expression of an additional C-terminally extended isoform via the use of an alternative in-frame translation termination codon. [provided by RefSeq, Dec 2017]