

Product datasheet for MR205630

Mapk13 (NM_011950) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mapk13 (NM_011950) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mapk13
Synonyms:	SAPK4; Serk4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR205630 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGCCTCACTCGGAAAAGGGCTTCTACAAGCAGGACATCAACAAGACTGCCTGGGAGCTACCCAAGA
CCTACCTGGCGCCCGCGCACGTCCGCGAGCGGGCCTATGGAGCGGTGTGCTCGGCCATCGACAAGCGGAC
AGGGGAGAAGGTGGCCATCAAGAAGCTGAGCCGGCCCTCCAGTCGGAGATCTTTGCCAAGCGCGCTTAC
CGCGAGCTTCTGCTCTTGAAGCACATGCACCATGAGAAGTCATTGGGCTTCTGGATGTCTTCAACCCTG
CGTCTTCCCTTCGGAGCTTCCATGATTTCTACCTGGTGTGCCCTTCATGCAGACAGACCTACAGAAGAT
CATGGGGATGGAATTCAGCGAGGATAAGGTCCAGTACTTGGTGTACCAGATGCTCAAAGGTCTAAAGTAC
ATCCACTCCGCTGGCATCGTCCACAGGGACCTGAAACCGGCAACCTGGCTGTGAATGAAGACTGTGAGC
TGAAGATCCTGGACTTTGGGCTGGCCCGCCACACAGACTGAGATGACGGGCTATGTGGTGACCCGCTG
GTACCGGGCCCCGAGGTGATCCTCAGCTGGATGCATTACAACCAGACAGTCGACATCTGGTCTGTGGT
TGCATCATGGCAGAAATGCTGACTGAAAGACTCTTCAAGGGCAAGGACTACCTGGACCAGCTGACCC
AGATCCTGAAAGTACTGGGTGCCAGGTGCCGAGTTCGTGCAGAAGCTGAAAGACAAGGCGCCAAATC
CTATATTCAGTCCCTGCCCGAGCCCCAAGAAGATTTACACAGCTCTTCCACGCGCCAGTCCGCAA
GCTGCAGACCTGCTCGACAAGATGCTGGAGCTGGATGTGGACAAGCGTCTGACCGCTGCTCAGGCCTGG
CTCACCCCTTCTTTGAACCTTCCGGGACCCTGAGGAGGAGACAGAGGCCAGCCTTTTGATGATGC
CTTAGAACATGAGAACTCAGTGTGGACGAATGAAACAACACATCTACAAGAGATCTCAAACCTCAGT
CCCATAGCCCGAAGGACTCACGGCGACGAAGTGGCATGAAGCTGCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR205630 protein sequence
Red=Cloning site Green=Tags(s)

MSLTRKRGFYKQDINKTAWELPKTYLAPAHVGSAGYAVCSAIDKRTGEKVAIKKLSRPFQSEIFAKRAY
 RELLKMHHEHENVIGLLDVFTPASSLRSFHDYLVMPFMQDLQKIMGMEFSEDKVQYLVYQMLKGLKY
 IHSAGIVHRDLKPGNLAVNEDCELIKILDFGLARHTDTEMTGYVVTRWYRAPEVILSWMHYNQTVDIWSVG
 CIMAEMLTGKTLFKGKDYLDQLTQILKVTGVPGAEFVQKLDKAAKSYIQSLPQSPKKDFQLFPRASPQ
 AADLLDKMLELDVDKRLTAAQALAHPPFEPFRDPEEETAQQPFDDALEHEKLSVDEWKQHIYKEISNFS
 PIARKDSRRRSGMKLQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_011950

ORF Size: 1101 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_011950.1](#), [NM_011950.2](#), [NP_036080.2](#)

RefSeq Size: 1406 bp

RefSeq ORF: 1101 bp

Locus ID: 26415

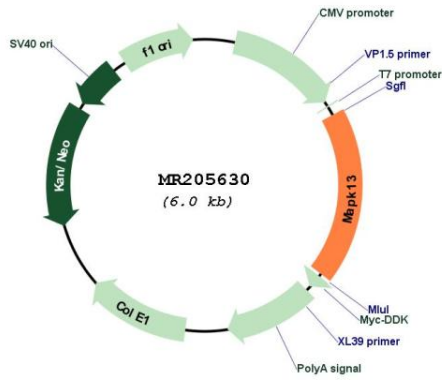
UniProt ID: [Q9Z1B7](#)

Cytogenetics: 17 A3.3

MW: 42.1 kDa

Gene Summary: Serine/threonine kinase which acts as an essential component of the MAP kinase signal transduction pathway. MAPK13 is one of the four p38 MAPKs which play an important role in the cascades of cellular responses evoked by extracellular stimuli such as proinflammatory cytokines or physical stress leading to direct activation of transcription factors such as ELK1 and ATF2. Accordingly, p38 MAPKs phosphorylate a broad range of proteins and it has been estimated that they may have approximately 200 to 300 substrates each. MAPK13 is one of the less studied p38 MAPK isoforms. Some of the targets are downstream kinases such as MAPKAPK2, which are activated through phosphorylation and further phosphorylate additional targets. Plays a role in the regulation of protein translation by phosphorylating and inactivating EEF2K. Involved in cytoskeletal remodeling through phosphorylation of MAPT and STMN1. Mediates UV irradiation induced up-regulation of the gene expression of CXCL14. Plays an important role in the regulation of epidermal keratinocyte differentiation, apoptosis and skin tumor development. Phosphorylates the transcriptional activator MYB in response to stress which leads to rapid MYB degradation via a proteasome-dependent pathway. MAPK13 also phosphorylates and down-regulates PRKD1 during regulation of insulin secretion in pancreatic beta cells.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR205630