

## Product datasheet for **RC217201L3V**

### MAP3K4 (NM\_006724) Human Tagged ORF Clone Lentiviral Particle

#### Product data:

Product Type:	Lentiviral Particles
Product Name:	MAP3K4 (NM_006724) Human Tagged ORF Clone Lentiviral Particle
Symbol:	MAP3K4
Synonyms:	MAPKKK4; MEKK 4; MEKK4; MTK1; PRO0412
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-Myc-DDK-P2A-Puro (PS100092)
Tag:	Myc-DDK
ACCN:	NM_006724
ORF Size:	4674 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC217201).
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. <a href="#">More info</a>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	<a href="#">NM_006724.2</a>
RefSeq Size:	5351 bp
RefSeq ORF:	4677 bp
Locus ID:	4216
UniProt ID:	<a href="#">Q9Y6R4</a>
Cytogenetics:	6q26
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	GnRH signaling pathway, MAPK signaling pathway



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**MW:** 176.8 kDa

**Gene Summary:** The central core of each mitogen-activated protein kinase (MAPK) pathway is a conserved cascade of 3 protein kinases: an activated MAPK kinase kinase (MAPKKK) phosphorylates and activates a specific MAPK kinase (MAPKK), which then activates a specific MAPK. While the ERK MAPKs are activated by mitogenic stimulation, the CSBP2 and JNK MAPKs are activated by environmental stresses such as osmotic shock, UV irradiation, wound stress, and inflammatory factors. This gene encodes a MAPKKK, the MEKK4 protein, also called MTK1. This protein contains a protein kinase catalytic domain at the C terminus. The N-terminal nonkinase domain may contain a regulatory domain. Expression of MEKK4 in mammalian cells activated the CSBP2 and JNK MAPK pathways, but not the ERK pathway. In vitro kinase studies indicated that recombinant MEKK4 can specifically phosphorylate and activate PRKMK6 and SERK1, MAPKKs that activate CSBP2 and JNK, respectively but cannot phosphorylate PRKMK1, an MAPKK that activates ERKs. MEKK4 is a major mediator of environmental stresses that activate the CSBP2 MAPK pathway, and a minor mediator of the JNK pathway. Several alternatively spliced transcripts encoding distinct isoforms have been described. [provided by RefSeq, May 2014]