

## Product datasheet for **TR517364**

### Map4k2 Mouse shRNA Plasmid (Locus ID 26412)

#### Product data:

|                           |                                                                                                                                                                                                                                                                                                  |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Type:             | shRNA Plasmids                                                                                                                                                                                                                                                                                   |
| Product Name:             | Map4k2 Mouse shRNA Plasmid (Locus ID 26412)                                                                                                                                                                                                                                                      |
| Locus ID:                 | 26412                                                                                                                                                                                                                                                                                            |
| Synonyms:                 | AI385662; BL44; GCK; Rab8ip                                                                                                                                                                                                                                                                      |
| Vector:                   | pRS (TR20003)                                                                                                                                                                                                                                                                                    |
| E. coli Selection:        | Ampicillin                                                                                                                                                                                                                                                                                       |
| Mammalian Cell Selection: | Puromycin                                                                                                                                                                                                                                                                                        |
| Format:                   | Retroviral plasmids                                                                                                                                                                                                                                                                              |
| Components:               | Map4k2 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 26412). 5µg purified plasmid DNA per construct<br>29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.                                                                             |
| RefSeq:                   | <a href="#">BC116286</a> , <a href="#">BC116287</a> , <a href="#">NM_001291787</a> , <a href="#">NM_009006</a> , <a href="#">NR_117093</a> , <a href="#">NM_009006.1</a> , <a href="#">NM_009006.2</a> , <a href="#">NM_009006.3</a> , <a href="#">NM_001291787.1</a> , <a href="#">BC034109</a> |
| UniProt ID:               | <a href="#">Q61161</a>                                                                                                                                                                                                                                                                           |



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**Summary:**

Serine/threonine-protein kinase which acts as an essential component of the MAP kinase signal transduction pathway (PubMed:8643544). Acts as a MAPK kinase kinase (MAP4K) and is an upstream activator of the stress-activated protein kinase/c-Jun N-terminal kinase (SAP/JNK) signaling pathway and to a lesser extent of the p38 MAPKs signaling pathway (By similarity). Required for the efficient activation of JNKs by TRAF6-dependent stimuli, including pathogen-associated molecular patterns (PAMPs) such as polyinosine-polycytidine (poly(IC)), lipopolysaccharides (LPS), lipid A, peptidoglycan (PGN), or bacterial flagellin (By similarity). To a lesser degree, IL-1 and engagement of CD40 also stimulate MAP4K2-mediated JNKs activation (By similarity). The requirement for MAP4K2/GCK is most pronounced for LPS signaling, and extends to LPS stimulation of c-Jun phosphorylation and induction of IL-8 (By similarity). Enhances MAP3K1 oligomerization, which may relieve N-terminal mediated MAP3K1 autoinhibition and lead to activation following autophosphorylation (By similarity). Mediates also the SAP/JNK signaling pathway and the p38 MAPKs signaling pathway through activation of the MAP3Ks MAP3K10/MLK2 and MAP3K11/MLK3 (By similarity). May play a role in the regulation of vesicle targeting or fusion (By similarity).[UniProtKB/Swiss-Prot Function]

**shRNA Design:**

These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact [techsupport@origene.com](mailto:techsupport@origene.com). If you need a special design or shRNA sequence, please utilize our [custom shRNA service](#).

**Performance Guaranteed:**

OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at [techsupport@origene.com](mailto:techsupport@origene.com). Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).