

## Product datasheet for **TR519661**

### Taok1 Mouse shRNA Plasmid (Locus ID 216965)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Taok1 Mouse shRNA Plasmid (Locus ID 216965)
Locus ID:	216965
Synonyms:	2810468K05Rik; AU020252; D130018F14Rik; Map3k16; Markk; mKIAA1361; Psk2
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Taok1 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 216965). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_144825</a> , <a href="#">NM_144825.1</a> , <a href="#">NM_144825.2</a> , <a href="#">BC151012</a> , <a href="#">BC016522</a> , <a href="#">BC019960</a> , <a href="#">BC034906</a> , <a href="#">BC047271</a> , <a href="#">BC092076</a> , <a href="#">BC151015</a> , <a href="#">BC151016</a> , <a href="#">BC156277</a> , <a href="#">BC172656</a> , <a href="#">NM_001364133</a> , <a href="#">NM_001364134</a> , <a href="#">NM_144825.3</a>
UniProt ID:	<a href="#">Q5F2E8</a>
Summary:	Serine/threonine-protein kinase involved in various processes such as p38/MAPK14 stress-activated MAPK cascade, DNA damage response and regulation of cytoskeleton stability. Phosphorylates MAP2K3, MAP2K6 and MARK2. Acts as an activator of the p38/MAPK14 stress-activated MAPK cascade by mediating phosphorylation and subsequent activation of the upstream MAP2K3 and MAP2K6 kinases. Involved in G-protein coupled receptor signaling to p38/MAPK14. In response to DNA damage, involved in the G2/M transition DNA damage checkpoint by activating the p38/MAPK14 stress-activated MAPK cascade, probably by mediating phosphorylation of MAP2K3 and MAP2K6. Acts as a regulator of cytoskeleton stability by phosphorylating 'Thr-208' of MARK2, leading to activate MARK2 kinase activity and subsequent phosphorylation and detachment of MAPT/TAU from microtubules. Also acts as a regulator of apoptosis: regulates apoptotic morphological changes, including cell contraction, membrane blebbing and apoptotic bodies formation via activation of the MAPK8/JNK cascade (By similarity).[UniProtKB/Swiss-Prot Function]



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- 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).