

## **Product datasheet for TR504906**

## **Actr3 Mouse shRNA Plasmid (Locus ID 74117)**

**Product data:** 

**Product Type:** shRNA Plasmids

**Product Name:** Actr3 Mouse shRNA Plasmid (Locus ID 74117)

**Locus ID:** 74117

**Synonyms:** 1200003A09Rik; Arp3

Vector: pRS (TR20003)

E. coli Selection: Ampicillin

Mammalian Cell Puromycin

Selection:

Format:

Retroviral plasmids

Components: Actr3 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID =

74117). 5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.

RefSeq: BC005557, BC080806, BC108386, NM 001205385, NM 001205386, NM 023735, NM 023735.1,

NM 023735.2, NM 001205385.1, NM 001205386.1

UniProt ID: Q99JY9

**Summary:** ATP-binding component of the Arp2/3 complex, a multiprotein complex that mediates actin

polymerization upon stimulation by nucleation-promoting factor (NPF). The Arp2/3 complex mediates the formation of branched actin networks in the cytoplasm, providing the force for cell motility. Seems to contact the pointed end of the daughter actin filament. In addition to

its role in the cytoplasmic cytoskeleton, the Arp2/3 complex also promotes actin

polymerization in the nucleus, thereby regulating gene transcription and repair of damaged DNA. The Arp2/3 complex promotes homologous recombination (HR) repair in response to DNA damage by promoting nuclear actin polymerization, leading to drive motility of double-

strand breaks (DSBs). Plays a role in ciliogenesis.[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 <u>techsupport@origene.com</u>. If you need a special design or shRNA sequence, please utilize our custom shRNA service.



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## 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. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).