

## **Product datasheet for TR514019**

## OriGene Technologies, Inc.

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## **Arhgap35 Mouse shRNA Plasmid (Locus ID 232906)**

**Product data:** 

**Product Type:** shRNA Plasmids

**Product Name:** Arhgap35 Mouse shRNA Plasmid (Locus ID 232906)

**Locus ID:** 232906

**Synonyms:** 6430596G11Rik; Al841135; Grlf1; mKIAA1722; p190A; p190RhoGAP

**Vector:** pRS (TR20003)

E. coli Selection: Ampicillin

Mammalian Cell Puromycin

Selection:

Format: Retroviral plasmids

Components: Arhgap35 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector (Gene ID

= 232906). 5µg purified plasmid DNA per construct

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

RefSeq: NM 172739, NM 172739.1, NM 172739.2, NM 172739.3, NM 172739.4, BC139459, BC035541,

BC057306, BC066142, BC111038, BC139461

UniProt ID: Q91YM2



## Summary:

Rho GTPase-activating protein (GAP). Binds several acidic phospholipids which inhibits the Rho GAP activity to promote the Rac GAP activity (PubMed:16971514). This binding is inhibited by phosphorylation by PRKCA (By similarity). Involved in cell differentiation as well as cell adhesion and migration, plays an important role in retinal tissue morphogenesis, neural tube fusion, midline fusion of the cerebral hemispheres and mammary gland branching morphogenesis (PubMed:11044403, PubMed:11283609, PubMed:18502760, PubMed:21945077). Transduces signals from p21-ras to the nucleus, acting via the ras GTPase-activating protein (GAP) (PubMed:16971514). Transduces SRC-dependent signals from cell-surface adhesion molecules, such as laminin, to promote neurite outgrowth. Regulates axon outgrowth, guidance and fasciculation (PubMed:11283609). Modulates Rho GTPase-dependent F-actin polymerization, organization and assembly, is involved in polarized cell migration and in the positive regulation of ciliogenesis and cilia elongation (PubMed:11044403, PubMed:26859289, PubMed:18502760). During mammary gland development, is required in both the epithelial and stromal compartments for ductal outgrowth (PubMed:21945077). Represses transcription of the glucocorticoid receptor by binding to the cis-acting regulatory sequence 5'-GAGAAAAGAAACTGGAGAAACTC-3'; this function is however unclear and would need additional experimental evidences (By similarity).[UniProtKB/Swiss-Prot Function]

shRNA Design:

Performance Guaranteed: 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 <a href="mailto:techsupport@origene.com">techsupport@origene.com</a>. If you need a special design or shRNA sequence, please utilize our <a href="mailto:custom shRNA service">custom shRNA service</a>.

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).