

## Product datasheet for **TR309942**

### **RAP1GAP Human shRNA Plasmid Kit (Locus ID 5909)**

#### **Product data:**

Product Type:	shRNA Plasmids
Product Name:	RAP1GAP Human shRNA Plasmid Kit (Locus ID 5909)
Locus ID:	5909
Synonyms:	RAP1GA1; RAP1GAP1; RAP1GAPII; RAPGAP
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	RAP1GAP - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 5909). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_001145657</a> , <a href="#">NM_001145658</a> , <a href="#">NM_001330383</a> , <a href="#">NM_002885</a> , <a href="#">NM_001350524</a> , <a href="#">NM_001350525</a> , <a href="#">NM_001350526</a> , <a href="#">NM_001350527</a> , <a href="#">NM_001350528</a> , <a href="#">NM_002885.1</a> , <a href="#">NM_002885.2</a> , <a href="#">NM_001145657.1</a> , <a href="#">NM_001145658.1</a> , <a href="#">BC054490</a> , <a href="#">BC035030</a> , <a href="#">BM739021</a> , <a href="#">NM_001145658.3</a> , <a href="#">NM_001145657.3</a> , <a href="#">NM_002885.4</a>
UniProt ID:	<a href="#">P47736</a>
Summary:	This gene encodes a type of GTPase-activating-protein (GAP) that down-regulates the activity of the ras-related RAP1 protein. RAP1 acts as a molecular switch by cycling between an inactive GDP-bound form and an active GTP-bound form. The product of this gene, RAP1GAP, promotes the hydrolysis of bound GTP and hence returns RAP1 to the inactive state whereas other proteins, guanine nucleotide exchange factors (GEFs), act as RAP1 activators by facilitating the conversion of RAP1 from the GDP- to the GTP-bound form. In general, ras subfamily proteins, such as RAP1, play key roles in receptor-linked signaling pathways that control cell growth and differentiation. RAP1 plays a role in diverse processes such as cell proliferation, adhesion, differentiation, and embryogenesis. Alternative splicing results in multiple transcript variants encoding distinct proteins. [provided by RefSeq, Aug 2011]
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 <a href="mailto:techsupport@origene.com">techsupport@origene.com</a> . If you need a special design or shRNA sequence, please utilize our <a href="#">custom shRNA service</a> .



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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](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).