

## Product datasheet for **TR302101**

### **RASGRP 4 (RASGRP4) Human shRNA Plasmid Kit (Locus ID 115727)**

#### **Product data:**

<b>Product Type:</b>	shRNA Plasmids
<b>Product Name:</b>	RASGRP 4 (RASGRP4) Human shRNA Plasmid Kit (Locus ID 115727)
<b>Locus ID:</b>	115727
<b>Vector:</b>	pRS (TR20003)
<b>E. coli Selection:</b>	Ampicillin
<b>Mammalian Cell Selection:</b>	Puromycin
<b>Format:</b>	Retroviral plasmids
<b>Components:</b>	RASGRP4 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 115727). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
<b>RefSeq:</b>	<u><a href="#">NM_001146202</a></u> , <u><a href="#">NM_001146203</a></u> , <u><a href="#">NM_001146204</a></u> , <u><a href="#">NM_001146205</a></u> , <u><a href="#">NM_001146206</a></u> , <u><a href="#">NM_001146207</a></u> , <u><a href="#">NM_052949</a></u> , <u><a href="#">NM_170602</a></u> , <u><a href="#">NM_170603</a></u> , <u><a href="#">NM_170604</a></u> , <u><a href="#">NM_170604.1</a></u> , <u><a href="#">NM_170604.2</a></u> , <u><a href="#">NM_001146206.1</a></u> , <u><a href="#">NM_001146207.1</a></u> , <u><a href="#">NM_001146203.1</a></u> , <u><a href="#">NM_001146204.1</a></u> , <u><a href="#">NM_001146205.1</a></u> , <u><a href="#">NM_001146202.1</a></u> , <u><a href="#">BC146669</a></u> , <u><a href="#">BC142721</a></u> , <u><a href="#">BC150202</a></u> , <u><a href="#">BC151216</a></u> , <u><a href="#">NM_170604.3</a></u> , <u><a href="#">NM_001146204.2</a></u> , <u><a href="#">NM_001146205.2</a></u>
<b>UniProt ID:</b>	<u><a href="#">Q8TDF6</a></u>
<b>Summary:</b>	The protein encoded by this gene is a member of the Ras guanyl nucleotide-releasing protein (RasGRP) family of Ras guanine nucleotide exchange factors. It contains a Ras exchange motif, a diacylglycerol-binding domain, and two calcium-binding EF hands. This protein was shown to activate H-Ras in a cation-dependent manner in vitro. Expression of this protein in myeloid cell lines was found to be correlated with elevated level of activated RAS protein, and the RAS activation can be greatly enhanced by phorbol ester treatment, which suggested a role of this protein in diacylglycerol regulated cell signaling pathways. Studies of a mast cell leukemia cell line expressing substantial amounts of abnormal transcripts of this gene indicated that this gene may play an important role in the final stages of mast cell development. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2009]



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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).