**OriGene Technologies, Inc.**
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

# Product datasheet for TR314871

## AK2 Human shRNA Plasmid Kit (Locus ID 204)

### Product data:

| | |
|---|---|
| **Product Type:** | shRNA Plasmids |
| **Product Name:** | AK2 Human shRNA Plasmid Kit (Locus ID 204) |
| **Locus ID:** | 204 |
| **Synonyms:** | ADK2 |
| **Vector:** | pRS (TR20003) |
| **E. coli Selection:** | Ampicillin |
| **Mammalian Cell Selection:** | Puromycin |
| **Format:** | Retroviral plasmids |
| **Components:** | AK2 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 204).<br>5µg purified plasmid DNA per construct<br>29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free. |
| **RefSeq:** | NM_001199199, NM_001319139, NM_001319140, NM_001319141, NM_001319142, NM_001319143, NM_001625, NM_013411, NM_172199, NR_037591, NR_037592, NR_134976, NM_001625.1, NM_001625.2, NM_001625.3, NM_013411.1, NM_013411.3, NM_013411.4, NM_001199199.1, BC070127, BC090040, BC090040.1, BC009405, BC026705, NM_013411.5, NM_001199199.2, NM_001625.4 |
| **UniProt ID:** | P54819 |
| **Summary:** | Adenylate kinases are involved in regulating the adenine nucleotide composition within a cell by catalyzing the reversible transfer of phosphate groups among adenine nucleotides. Three isozymes of adenylate kinase, namely 1, 2, and 3, have been identified in vertebrates; this gene encodes isozyme 2. Expression of these isozymes is tissue-specific and developmentally regulated. Isozyme 2 is localized in the mitochondrial intermembrane space and may play a role in apoptosis. Mutations in this gene are the cause of reticular dysgenesis. Alternate splicing results in multiple transcript variants. Pseudogenes of this gene are found on chromosomes 1 and 2.[provided by RefSeq, Nov 2010] |
| **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. 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).