

## Product datasheet for **TL312033**

### KCNA3 Human shRNA Plasmid Kit (Locus ID 3738)

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | shRNA Plasmids   |
| Product Name:             | KCNA3 Human shRNA Plasmid Kit (Locus ID 3738)  |
| Locus ID:                 | 3738   |
| Synonyms:                 | HGK5; HLK3; HPCN3; HUKIII; KV1.3; MK3; PCN3  |
| Vector:                   | pGFP-C-shLenti (TR30023)   |
| E. coli Selection:        | Chloramphenicol (34 ug/ml)   |
| Mammalian Cell Selection: | Puromycin  |
| Format:                   | Lentiviral plasmids  |
| Components:               | KCNA3 - Human, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 3738).<br>5µg purified plasmid DNA per construct<br>29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.  |
| RefSeq:                   | <a href="#">NM_002232</a> , <a href="#">NR_109845</a> , <a href="#">NR_109846</a> , <a href="#">NM_002232.1</a> , <a href="#">NM_002232.2</a> , <a href="#">NM_002232.3</a> ,<br><a href="#">NM_002232.4</a> , <a href="#">BC035059</a> , <a href="#">BC035059.1</a> , <a href="#">BC064595</a> , <a href="#">BM995500</a> , <a href="#">NM_002232.5</a>   |
| UniProt ID:               | <a href="#">P22001</a>   |
| Summary:                  | Potassium channels represent the most complex class of voltage-gated ion channels from both functional and structural standpoints. Their diverse functions include regulating neurotransmitter release, heart rate, insulin secretion, neuronal excitability, epithelial electrolyte transport, smooth muscle contraction, and cell volume. Four sequence-related potassium channel genes - shaker, shaw, shab, and shal - have been identified in Drosophila, and each has been shown to have human homolog(s). This gene encodes a member of the potassium channel, voltage-gated, shaker-related subfamily. This member contains six membrane-spanning domains with a shaker-type repeat in the fourth segment. It belongs to the delayed rectifier class, members of which allow nerve cells to efficiently repolarize following an action potential. It plays an essential role in T-cell proliferation and activation. This gene appears to be intronless and it is clustered together with KCNA2 and KCNA10 genes on chromosome 1. [provided by RefSeq, Jul 2008] |
| 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).