# Product datasheet for TL302280V

## AMPK gamma 3 (PRKAG3) Human shRNA Lentiviral Particle (Locus ID 53632)

### Product data:

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| **Product Type:** | shRNA Lentiviral Particles |
| **Product Name:** | AMPK gamma 3 (PRKAG3) Human shRNA Lentiviral Particle (Locus ID 53632) |
| **Locus ID:** | 53632 |
| **Synonyms:** | AMPKG3; SMGMQTL |
| **Vector:** | pGFP-C-shLenti (TR30023) |
| **Format:** | Lentiviral particles |
| **Components:** | PRKAG3 - Human shRNA lentiviral particles (4 unique 29mer target-specific shRNA, 1 scramble control), 0.5 ml each, >10^7 TU/ml. |
| **RefSeq:** | NM_017431, NM_017431.1, NM_017431.2, BC098102, BC098255, BC098277, BC098306, NM_017431.3 |
| **UniProt ID:** | Q9UGI9 |
| **Summary:** | The protein encoded by this gene is a regulatory subunit of the AMP-activated protein kinase (AMPK). AMPK is a heterotrimer consisting of an alpha catalytic subunit, and non-catalytic beta and gamma subunits. AMPK is an important energy-sensing enzyme that monitors cellular energy status. In response to cellular metabolic stresses, AMPK is activated, and thus phosphorylates and inactivates acetyl-CoA carboxylase (ACC) and beta-hydroxy beta-methylglutaryl-CoA reductase (HMGCR), key enzymes involved in regulating de novo biosynthesis of fatty acid and cholesterol. This subunit is one of the gamma regulatory subunits of AMPK. It is dominantly expressed in skeletal muscle. Studies of the pig counterpart suggest that this subunit may play a key role in the regulation of energy metabolism in skeletal muscle. [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 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.<br><br>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). |