

## Product datasheet for **TG301132**

### Transglutaminase 2 (TGM2) Human shRNA Plasmid Kit (Locus ID 7052)

#### Product data:

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| Product Type:             | shRNA Plasmids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Product Name:             | Transglutaminase 2 (TGM2) Human shRNA Plasmid Kit (Locus ID 7052)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Locus ID:                 | 7052                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Synonyms:                 | G(h); hTG2; TG(C); TGC; tTG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Vector:                   | pGFP-V-RS (TR30007)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| E. coli Selection:        | Kanamycin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Mammalian Cell Selection: | Puromycin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Format:                   | Retroviral plasmids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Components:               | TGM2 - Human, 4 unique 29mer shRNA constructs in retroviral GFP vector(Gene ID = 7052).<br>5µg purified plasmid DNA per construct<br>29-mer scrambled shRNA cassette in pGFP-V-RS Vector, TR30013, included for free.                                                                                                                                                                                                                                                                                                                                                                                                              |
| RefSeq:                   | <a href="#">NM_004613</a> , <a href="#">NM_198951</a> , <a href="#">NM_001323316</a> , <a href="#">NM_001323317</a> , <a href="#">NM_001323318</a> , <a href="#">NM_198951.1</a> ,<br><a href="#">NM_198951.2</a> , <a href="#">NM_004613.1</a> , <a href="#">NM_004613.2</a> , <a href="#">NM_004613.3</a> , <a href="#">BC003551</a> , <a href="#">BC003551.1</a> , <a href="#">BC073946</a> ,<br><a href="#">NM_004613.4</a> , <a href="#">NM_198951.3</a>                                                                                                                                                                      |
| UniProt ID:               | <a href="#">P21980</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Summary:                  | Transglutaminases are enzymes that catalyze the crosslinking of proteins by epsilon-gamma glutamyl lysine isopeptide bonds. While the primary structure of transglutaminases is not conserved, they all have the same amino acid sequence at their active sites and their activity is calcium-dependent. The protein encoded by this gene acts as a monomer, is induced by retinoic acid, and appears to be involved in apoptosis. Finally, the encoded protein is the autoantigen implicated in celiac disease. Two transcript variants encoding different isoforms have been found for this gene. [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).