

## Product datasheet for **TG304521**

### FGD4 Human shRNA Plasmid Kit (Locus ID 121512)

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | shRNA Plasmids  |
| Product Name:             | FGD4 Human shRNA Plasmid Kit (Locus ID 121512)  |
| Locus ID:                 | 121512  |
| Synonyms:                 | CMT4H; FRABP; ZFYVE6  |
| Vector:                   | pGFP-V-RS (TR30007)   |
| E. coli Selection:        | Kanamycin   |
| Mammalian Cell Selection: | Puromycin   |
| Format:                   | Retroviral plasmids   |
| Components:               | FGD4 - Human, 4 unique 29mer shRNA constructs in retroviral GFP vector(Gene ID = 121512).<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_001304480</a> , <a href="#">NM_001304481</a> , <a href="#">NM_001304483</a> , <a href="#">NM_001304484</a> , <a href="#">NM_001330373</a> ,<br><a href="#">NM_001330374</a> , <a href="#">NM_139241</a> , <a href="#">NM_139241.1</a> , <a href="#">NM_139241.2</a> , <a href="#">NM_139241.3</a> , <a href="#">BC039708</a> ,<br><a href="#">BC045552</a> , <a href="#">BC063403</a> , <a href="#">BC096746</a> , <a href="#">NM_001370297</a> , <a href="#">NM_001370298</a>   |
| UniProt ID:               | <a href="#">Q96M96</a>  |
| Summary:                  | This gene encodes a protein that is involved in the regulation of the actin cytoskeleton and cell shape. This protein contains an actin filament-binding domain, which together with its Dbl homology domain and one of its pleckstrin homology domains, can form microspikes. This protein can activate MAPK8 independently of the actin filament-binding domain, and it is also involved in the activation of CDC42 via the exchange of bound GDP for free GTP. The activation of CDC42 also enables this protein to play a role in mediating the cellular invasion of <i>Cryptosporidium parvum</i> , an intracellular parasite that infects the gastrointestinal tract. Mutations in this gene can cause Charcot-Marie-Tooth disease type 4H (CMT4H), a disorder of the peripheral nervous system. Multiple alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2015] |
| 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).