

## Product datasheet for **TR308727**

### **RANKL (TNFSF11) Human shRNA Plasmid Kit (Locus ID 8600)**

#### **Product data:**

|                           |  |
|---------------------------|--|
| Product Type:             | shRNA Plasmids   |
| Product Name:             | RANKL (TNFSF11) Human shRNA Plasmid Kit (Locus ID 8600)  |
| Locus ID:                 | 8600   |
| Synonyms:                 | CD254; hRANKL2; ODF; OPGL; OPTB2; RANKL; sOdf; TNLG6B; TRANCE  |
| Vector:                   | pRS (TR20003)  |
| E. coli Selection:        | Ampicillin   |
| Mammalian Cell Selection: | Puromycin  |
| Format:                   | Retroviral plasmids  |
| Components:               | TNFSF11 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 8600). 5µg purified plasmid DNA per construct<br>29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.   |
| RefSeq:                   | <a href="#">NM_003701</a> , <a href="#">NM_033012</a> , <a href="#">NM_003701.2</a> , <a href="#">NM_003701.3</a> , <a href="#">NM_033012.1</a> , <a href="#">NM_033012.2</a> , <a href="#">NM_033012.3</a> , <a href="#">BC040889</a> , <a href="#">BC074823</a> , <a href="#">BC074890</a> , <a href="#">BC117286</a> , <a href="#">BC117288</a>   |
| UniProt ID:               | <a href="#">O14788</a>   |
| Summary:                  | This gene encodes a member of the tumor necrosis factor (TNF) cytokine family which is a ligand for osteoprotegerin and functions as a key factor for osteoclast differentiation and activation. This protein was shown to be a dendritic cell survival factor and is involved in the regulation of T cell-dependent immune response. T cell activation was reported to induce expression of this gene and lead to an increase of osteoclastogenesis and bone loss. This protein was shown to activate antiapoptotic kinase AKT/PKB through a signaling complex involving SRC kinase and tumor necrosis factor receptor-associated factor (TRAF) 6, which indicated this protein may have a role in the regulation of cell apoptosis. Targeted disruption of the related gene in mice led to severe osteopetrosis and a lack of osteoclasts. The deficient mice exhibited defects in early differentiation of T and B lymphocytes, and failed to form lobulo-alveolar mammary structures during pregnancy. Two alternatively spliced transcript variants have been found. [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).