

## Product datasheet for **TR700762**

### **Mxra8 Rat shRNA Plasmid (Locus ID 313770)**

#### **Product data:**

Product Type:	shRNA Plasmids
Product Name:	Mxra8 Rat shRNA Plasmid (Locus ID 313770)
Locus ID:	313770
Synonyms:	1200013a08rik
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Mxra8 - Rat, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 313770). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_001007002</a> , <a href="#">NM_001007002.1</a> , <a href="#">BC083849</a>
UniProt ID:	<a href="#">Q5XI43</a>
Summary:	Transmembrane protein which can modulate activity of various signaling pathways, probably via binding to integrin ITGAV:ITGB3. Mediates heterophilic cell-cell interactions in vitro. Inhibits osteoclastogenesis downstream of TNFSF11/RANKL and CSF1, where it may function by attenuating signaling via integrin ITGB3 and MAP kinase p38. Plays a role in cartilage formation where it promotes proliferation and maturation of growth plate chondrocytes. Stimulates formation of primary cilia in chondrocytes. Enhances expression of genes involved in the hedgehog signaling pathway in chondrocytes, including the hedgehog signaling molecule IHH; may also promote signaling via the PTHLH/PTHrP pathway. Plays a role in angiogenesis where it suppresses migration of endothelial cells and also promotes their apoptosis. Inhibits VEGF-induced activation of AKT and p38 MAP kinase in endothelial cells. Also inhibits VTN (vitronectin)-mediated integrin ITGAV:ITGB3 signaling and activation of PTK2/FAK. May play a role in the maturation and maintenance of the blood-brain barrier. [UniProtKB/Swiss-Prot Function]
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).