

## Product datasheet for **TR311442**

### MMP20 Human shRNA Plasmid Kit (Locus ID 9313)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	MMP20 Human shRNA Plasmid Kit (Locus ID 9313)
Locus ID:	9313
Synonyms:	A12A2; MMP-20
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	MMP20 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 9313). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_004771</a> , <a href="#">NM_004771.1</a> , <a href="#">NM_004771.2</a> , <a href="#">NM_004771.3</a> , <a href="#">BC152741</a> , <a href="#">NM_004771.4</a>
UniProt ID:	<a href="#">O60882</a>
Summary:	Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes, such as arthritis and metastasis. Most MMP's are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. The protein encoded by this gene degrades amelogenin, the major protein component of dental enamel matrix, and thus thought to play a role in tooth enamel formation. A mutation in this gene, which alters the normal splice pattern and results in premature termination of the encoded protein, has been associated with amelogenesis imperfecta. This gene is part of a cluster of MMP genes located on chromosome 11q22.3. [provided by RefSeq, Aug 2011]
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).