



<b>OTI Disclaimer:</b>	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_004771.3</a>
<b>RefSeq Size:</b>	1956 bp
<b>RefSeq ORF:</b>	1452 bp
<b>Locus ID:</b>	9313
<b>UniProt ID:</b>	<a href="#">O60882</a>
<b>Cytogenetics:</b>	11q22.2
<b>Protein Families:</b>	Druggable Genome, Secreted Protein, Transmembrane
<b>MW:</b>	54.39 kDa
<b>Gene Summary:</b>	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]