BACKGROUND
Matrix metalloproteinases (MMPs) are highly homologous Zn$^{2+}$ endopeptidases involved in extracellular matrix (ECM) breakdown. MMP-20 (enamelysin) is involved in the degradation of various components of the ECM during development, hemostasis and pathological conditions. The domain organization of MMP-20 is similar to other MMPs, including a signal peptide, a prodomain with the conserved motif PRCGVPD involved in maintaining enzyme latency, a catalytic domain with a Zn-binding site and a COOH-terminal fragment similar to the sequence of hemopexin. MMP-20 is expressed during the early through middle stages of enamel development, at which time it likely hydrolyzes Amelogenin, a major protein component of the enamel matrix. The expression pattern of MMP-20 in the enamel organ indicates that it may be involved in the turnover of ECM proteins during tooth development and enamel formation. Human MMP-20 maps to chromosome 11q22.2, clustered to at least seven other members of the MMP gene family.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: Mmp20 (mouse) mapping to 9 A1.

PRODUCT
MMP-20 siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see MMP-20 shRNA Plasmid (m): sc-41562-SH and MMP-20 shRNA (m) Lentiviral Particles: sc-41562-V as alternate gene silencing products.

For independent verification of MMP-20 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-41562A, sc-41562B and sc-41562C.

PROTOCOLS
See our web site at www.scbt.com for detailed protocols and support products.