SANTA CRUZ BIOTECHNOLOGY, INC.

Amelogenin (FL-191): sc-32892

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

Dental enamel is a highly mineralized tissue with most of its volume occupied by large, highly organized, hydroxyapatite crystals. This structure is thought to be controlled through the interaction of many organic matrix molecules including Amelogenin, Ameloblastin, Enamelin, Tuftelin and several other enzymes. All of these secreted proteins are involved in the mineralization and enamel matrix formation in developing tooth enamel. The gene AMELX which encodes for the protein Amelogenin is encoded on the X-chromosome. Amelogenin, also designated AMG, AMGX or AMEX, is involved in biomineralization and organization of developing enamel. It functions by regulating crystallite formation during the secretory stage of enamel development. Amelogenin, which localizes to the extracellular matrix, is expressed by ameloblasts and is the predominant protein in developing dental enamel. Defects in the AMELX gene can cause amelogenesis imperfecta hypoplastic type 1 (AIH1) which is an X-linked disease that affects the formation of tooth enamel.

CHROMOSOMAL LOCATION

Genetic locus: AMELX (human) mapping to Xp22.2, AMELY (human) mapping to Yp11.2; Amelx (mouse) mapping to X F5.

SOURCE

Amelogenin (FL-191) is a rabbit polyclonal antibody raised against amino acids 1-191 representing full length Amelogenin X isoform of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Amelogenin (FL-191) is recommended for detection of Amelogenin X and Y isoforms of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Amelogenin (FL-191) is also recommended for detection of Amelogenin X and Y isoforms in additional species, including bovine and porcine.

Suitable for use as control antibody for Amelogenin siRNA (h): sc-44845, Amelogenin siRNA (m): sc-44846, Amelogenin shRNA Plasmid (h): sc-44845-SH, Amelogenin shRNA Plasmid (m): sc-44846-SH, Amelogenin shRNA (h) Lentiviral Particles: sc-44845-V and Amelogenin shRNA (m) Lentiviral Particles: sc-44846-V.

Molecular Weight of Amelogenin: 24 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, K-562 whole cell lysate: sc-2203 or Saos-2 cell lysate: sc-2235.

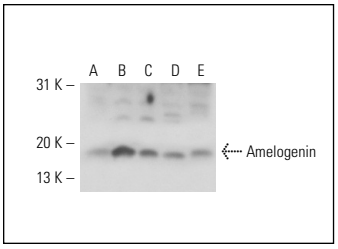
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



Amelogenin (FL-191): sc-32892. Western blot analysis of Amelogenin expression in NIH/3T3 (**A**), U-2 OS (**B**), Saos-2 (**C**), K-562 (**D**) and LADMAC (**E**) whole cell lysates.

SELECT PRODUCT CITATIONS

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