

FAM20A (D-17): sc-164308

BACKGROUND

FAM20A is a 541 amino acid secreted protein that belongs to the FAM20 family. While highly expressed in lung and liver, FAM20A has intermediate expression levels in thymus and ovary. The gene that encodes FAM20A maps to human chromosome 17q24.2. Defects in FAM20A are the cause of amelogenesis imperfecta and gingival fibromatosis syndrome (AIGFS). AIGFS is an autosomal recessive condition characterized by mild gingival fibromatosis and dental anomalies, including hypoplastic amelogenesis imperfecta, intrapulpal calcifications, delay of tooth eruption, hypodontia/oligodontia, pericoronal radiolucencies and unerupted teeth.

REFERENCES

- Nalbant, D., et al. 2005. FAM20: an evolutionarily conserved family of secreted proteins expressed in hematopoietic cells. *BMC Genomics* 6: 11.
- Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611062. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- An, C., et al. 2010. A transgenic mouse line with a 58-kb fragment deletion in chromosome 11E1 that encompasses part of the Fam20a gene and its upstream region shows growth disorder. *Kobe J. Med. Sci.* 55: E82-E92.
- O'Sullivan, J., et al. 2011. Whole-exome sequencing identifies FAM20A mutations as a cause of amelogenesis imperfecta and gingival hyperplasia syndrome. *Am. J. Hum. Genet.* 88: 616-620.
- Cho, S.H., et al. 2012. Novel FAM20A mutations in hypoplastic amelogenesis imperfecta. *Hum. Mutat.* 33: 91-94.

CHROMOSOMAL LOCATION

Genetic locus: FAM20A (human) mapping to 17q24.2; Fam20a (mouse) mapping to 11 E1.

SOURCE

FAM20A (D-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FAM20A 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.

Blocking peptide available for competition studies, sc-164308 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

PROTOCOLS

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

APPLICATIONS

FAM20A (D-17) is recommended for detection of FAM20A 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); non cross-reactive with FAM20B or FAM20C.

FAM20A (D-17) is also recommended for detection of FAM20A in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for FAM20A siRNA (h): sc-93655, FAM20A siRNA (m): sc-145032, FAM20A shRNA Plasmid (h): sc-93655-SH, FAM20A shRNA Plasmid (m): sc-145032-SH, FAM20A shRNA (h) Lentiviral Particles: sc-93655-V and FAM20A shRNA (m) Lentiviral Particles: sc-145032-V.

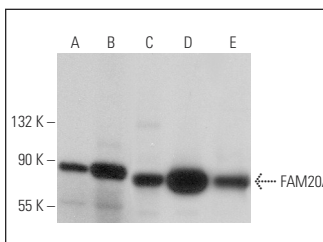
Molecular Weight of FAM20A: 61 kDa.

Positive Controls: rat liver extract: sc-2395, rat testis extract: sc-2400 or human liver extract: sc-363766.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



FAM20A (D-17): sc-164308. Western blot analysis of FAM20A expression in rat liver (A), human liver (B), rat testis (C), human testis (D) and mouse ovary (E) tissue extracts.

RESEARCH USE

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