

# Tuftelin (C-20): sc-47536

## BACKGROUND

Dental enamel is a highly mineralized tissue in which most of the volume is 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 and Tuftelin. All of these secreted proteins are involved in the mineralization and enamel matrix formation in developing tooth enamel. Tuftelin is also expressed in normal and cancerous non-mineralizing soft tissues, which suggests it has a universal function and/or a multifunctional role. The Tuftelin protein contains one N-glycosylation site, seven O-glycosylation sites and seven phosphorylation sites. It also contains a coiled-coil domain that is involved in self-assembly and the interaction of Tuftelin with the Tuftelin interacting protein TIP39.

## CHROMOSOMAL LOCATION

Genetic locus: TUFT1 (human) mapping to 1q21.3; Tuft1 (mouse) mapping to 3 F2.1.

## SOURCE

Tuftelin (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Tuftelin 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-47536 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.

## APPLICATIONS

Tuftelin (C-20) is recommended for detection of Tuftelin isoforms 1, 2 and 3 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).

Tuftelin (C-20) is also recommended for detection of Tuftelin isoforms 1, 2 and 3 in additional species, including bovine and porcine.

Suitable for use as control antibody for Tuftelin siRNA (h): sc-61736, Tuftelin siRNA (m): sc-61737, Tuftelin shRNA Plasmid (h): sc-61736-SH, Tuftelin shRNA Plasmid (m): sc-61737-SH, Tuftelin shRNA (h) Lentiviral Particles: sc-61736-V and Tuftelin shRNA (m) Lentiviral Particles: sc-61737-V.

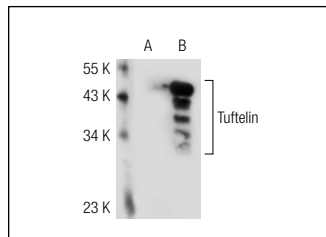
Molecular Weight of Tuftelin: 44 kDa.

Positive Controls: Tuftelin (h3): 293T Lysate: sc-170311, Tuftelin (m): 293T Lysate: sc-124366 or HeLa whole cell lysate: sc-2200.

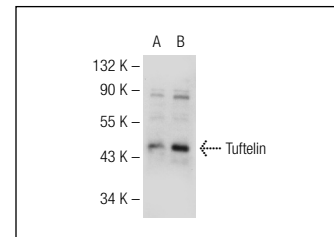
## RECOMMENDED SECONDARY REAGENTS

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



Tuftelin (C-20): sc-47536. Western blot analysis of Tuftelin expression in non-transfected: sc-117752 (A) and mouse Tuftelin transfected: sc-124366 (B) 293T whole cell lysates.



Tuftelin (C-20): sc-47536. Western blot analysis of Tuftelin expression in non-transfected: sc-117752 (A) and human Tuftelin transfected: sc-170311 (B) 293T whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **Tuftelin (G-11): sc-365632**, our highly recommended monoclonal alternative to Tuftelin (C-20).