

# MMP-13 (T-14): sc-31813

## BACKGROUND

The matrix metalloproteinases (MMP) are a family of peptidase enzymes responsible for the degradation of extracellular matrix components, including collagen, gelatin, fibronectin, laminin and proteoglycan. Transcription of MMP genes is differentially activated by phorbol ester, lipopolysaccharide (LPS) or staphylococcal enterotoxin B (SEB). MMP catalysis requires both calcium and zinc. MMP-13 (also designated collagenase-3) is produced by breast carcinomas and degrades collagen types I, II and III. MMP-13 has wide substrate specificity, and its physiologic expression is limited to situations in which rapid and effective remodeling of collagenous ECM takes place, such as fetal bone development and adult bone remodeling.

## CHROMOSOMAL LOCATION

Genetic locus: MMP13 (human) mapping to 11q22.2; Mmp13 (mouse) mapping to 9 A1.

## SOURCE

MMP-13 (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of MMP-13 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-31813 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

MMP-13 (T-14) is recommended for detection of precursor and mature MMP-13 of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MMP-13 (T-14) is also recommended for detection of precursor and mature MMP-13 in additional species, including canine and bovine.

Suitable for use as control antibody for MMP-13 siRNA (h): sc-41559, MMP-13 siRNA (m): sc-41560, MMP-13 shRNA Plasmid (h): sc-41559-SH, MMP-13 shRNA Plasmid (m): sc-41560-SH, MMP-13 shRNA (h) Lentiviral Particles: sc-41559-V and MMP-13 shRNA (h) Lentiviral Particles: sc-41559-V.

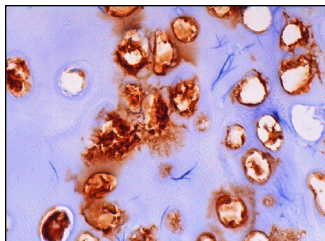
Molecular Weight of MMP-13: 48 kDa.

Positive Controls: SCC-4 whole cell lysate: sc-364363.

## 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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



MMP-13 (T-14): sc-31813. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cartilage from bronchus tissue showing cytoplasmic staining of chondrocytes.

## 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 **MMP-13 (C-3): sc-515284** or **MMP-13 (MM0019-12E10): sc-101564**, our highly recommended monoclonal alternatives to MMP-13 (T-14). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **MMP-13 (C-3): sc-515284**.