

# MUSTN1 (C-12): sc-99560

## BACKGROUND

MUSTN1 (musculoskeletal embryonic nuclear protein 1), also known as mustang, is a novel 82 amino acid nuclear protein expressed during musculoskeletal development and regeneration. MUSTN1 belongs to the mustang family and is a necessary regulator of chondrocyte function. Highly expressed in embryonic vertebral perichondrium, mesenchymal cells of intervertebral discs and mesenchymal condensations of limbs, MUSTN1 is also found in adult tendon and skeletal muscle. While expression of MUSTN1 is nearly undetectable in intact bone, it is greatly upregulated during bone regeneration and localizes to proliferating chondrocytes, osteoblasts of fracture callus and differentiating periosteal osteogenic cells. The gene encoding MUSTN1 maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci.

## REFERENCES

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2. Lakrua, M.E., Oparina, N.I.u. and Mashkova, T.D. 2003. Segment duplications in the human genome. *Mol. Biol.* 37: 212-220.
3. Lombardo, F., Komatsu, D. and Hadjiargyrou, M. 2004. Molecular cloning and characterization of mustang, a novel nuclear protein expressed during skeletal development and regeneration. *FASEB J.* 18: 52-61.
4. Liu, C. and Hadjiargyrou, M. 2006. Identification and characterization of the mustang promoter: regulation by AP-1 during myogenic differentiation. *Bone* 39: 815-824.
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6. Tsui, I.F., Rosin, M.P., Zhang, L., Ng, R.T. and Lam, W.L. 2008. Multiple aberrations of chromosome 3p detected in oral premalignant lesions. *Cancer Prev. Res.* 1: 424-429.
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## CHROMOSOMAL LOCATION

Genetic locus: MUSTN1 (human) mapping to 3p21.1; Mustn1 (mouse) mapping to 14 B.

## SOURCE

MUSTN1 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of MUSTN1 of human origin.

## STORAGE

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

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-99560 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MUSTN1 (C-12) is recommended for detection of MUSTN1 of mouse, rat and human 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MUSTN1 (C-12) is also recommended for detection of MUSTN1 in additional species, including porcine.

Suitable for use as control antibody for MUSTN1 siRNA (h): sc-78423, MUSTN1 siRNA (m): sc-149722, MUSTN1 shRNA Plasmid (h): sc-78423-SH, MUSTN1 shRNA Plasmid (m): sc-149722-SH, MUSTN1 shRNA (h) Lentiviral Particles: sc-78423-V and MUSTN1 shRNA (m) Lentiviral Particles: sc-149722-V.

Molecular Weight of MUSTN1: 9 kDa.

## 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.

## 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.