

Musclin (FL-133): sc-99096

BACKGROUND

Musclin, also designated osteocrin (Ostn), shows no homology with any known genes, except that it contains two conserved sequence motifs homologous to the natriuretic peptide family. Musclin is highly expressed in cells of osteoblast lineage and in skeletal muscle tissue, where it is tightly regulated by nutritional changes. It is secreted as either a full-length precursor protein or a processed form. A novel skeletal muscle-derived secretory factor, Musclin may play a role in bone formation and be linked to glucose metabolism. Studies indicate that Insulin increases Musclin expression, whereas epinephrine, isoproterenol and forskolin reduce its expression. Musclin is expressed in osteoblasts and young osteocytes. In mouse tissues, expression is bone-specific, although minimal Musclin expression is also observed in muscle, kidney, testis and heart tissues.

REFERENCES

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3. Nishizawa, H., Matsuda, M., Yamada, Y., Kawai, K., Suzuki, E., Makishima, M., Kitamura, T. and Shimomura, I. 2004. Musclin, a novel skeletal muscle-derived secretory factor. *J. Biol. Chem.* 279: 19391-19395.
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CHROMOSOMAL LOCATION

Genetic locus: OSTN (human) mapping to 3q28; Ostn (mouse) mapping to 16 B2.

SOURCE

Musclin (FL-133) is a rabbit polyclonal antibody raised against amino acids 1-133 representing full length Musclin of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-99096 X, 200 μ g/0.1 ml.

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.

APPLICATIONS

Musclin (FL-133) is recommended for detection of Musclin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Musclin (FL-133) is also recommended for detection of Musclin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Musclin siRNA (h): sc-61106, Musclin siRNA (m): sc-61107, Musclin shRNA Plasmid (h): sc-61106-SH, Musclin shRNA Plasmid (m): sc-61107-SH, Musclin shRNA (h) Lentiviral Particles: sc-61106-V and Musclin shRNA (m) Lentiviral Particles: sc-61107-V.

Musclin (FL-133) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Musclin: 17 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

PROTOCOLS

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


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Try **Musclin (D-7): sc-365631**, our highly recommended monoclonal alternative to Musclin (FL-133).