

# melusin (C-16): sc-11565

## BACKGROUND

Melusin is a ystaine-rich cytoplasmic protein that is predominantly expressed in striated skeletal and cardiac muscles. Within muscle tissues, melusin directly associates with the cytoplasmic domains of various subunits of the integrin membrane receptor. Melusin is localized in rows flanking the Z line containing  $\alpha$ -actinin, which suggests that melusin, together with the integrin receptors, contributes to the actin-integrin junctional complex and the integrity of the cytoskeleton. Melusin expression is detected in 15 day embryos and it is also highly expressed during secondary myogenesis, a process in which a distinct myoblast population line up using primary myotubes as scaffold and fuse to each other forming secondary myotubes that will give rise to the muscle fibers of adult tissue. In adult tissues, high expression of melusin is observed in regenerating adult tibialis anterior muscle, further indicating that melusin contributes to the maturation and organization of muscle cells.

## REFERENCES

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2. Bozyczko, D., Decker, C., Muschler, J. and Horwitz, A.F. 1989. Integrin on developing and adult skeletal muscle. *Exp. Cell Res.* 183: 72-91.
3. Belkin, A.M., Zhidkova, N.I., Balzac, F., Altruda, F., Tomatis, D., Maier, A., Tarone, G., Koteliensky, V.E. and Burridge, K. 1996.  $\beta$  1D integrin displaces the  $\beta$  1A isoform in striated muscles: localization at junctional structures and signaling potential in nonmuscle cells. *J. Cell Biol.* 132: 211-226.
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5. Brancaccio, M., Guazzone, S., Menini, N., Sibona, E., Hirsch, E., De Andrea, M., Rocchi, M., Altruda, F., Tarone, G. and Silengo L. 1999. Melusin is a new muscle-specific interactor for 1 integrin cytoplasmic domain. *J. Biol. Chem.* 274: 29282-29288.

## CHROMOSOMAL LOCATION

Genetic locus: ITGB1BP2 (human) mapping to Xq13.1; Itgb1bp2 (mouse) mapping to X D.

## SOURCE

melusin (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of melusin of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-11565 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

melusin (C-16) is recommended for detection of melusin 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).

melusin (C-16) is also recommended for detection of melusin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for melusin siRNA (h): sc-40736, melusin siRNA (m): sc-40737, melusin shRNA Plasmid (h): sc-40736-SH, melusin shRNA Plasmid (m): sc-40737-SH, melusin shRNA (h) Lentiviral Particles: sc-40736-V and melusin shRNA (m) Lentiviral Particles: sc-40737-V.

Molecular Weight of melusin: 38 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.

## 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.

## PROTOCOLS

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