SANTA CRUZ BIOTECHNOLOGY, INC.

Nebulette (N-15): sc-28120

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Nebulin and nebulette are homologous thin-filament associated proteins expressed in skeletal and cardiac muscles, respectively. Nebulette, unlike nebulin, is confined to the Z-disc region of the sarcomere and does not span the whole thin filament length. Nebulette colocalizes with α-actinin in the pre-, nascent, and mature myofibrils. A polymorphism in the actin-binding motif of nebulette is a genetic marker of susceptibility to nonfamilial idiopathic dilated cardiomyopathy (IDC), characterized by a thin-walled heart and systolic dysfunction.

REFERENCES

1. Moncman, C.L., et al. 1995. Nebulette: a 107 kD nebulin-like protein in cardiac muscle. Cell Motil. Cytoskeleton 32: 205-225.
2. Millevoi, S., et al. 1998. Characterization of nebulette and nebulin and emerging concepts of their roles for vertebrate Z-discs. J. Mol. Biol. 282: 111-123.
3. Moncman, C.L., et al. 1999. Functional dissection of nebulette demonstrates actin binding of nebulin-like repeats and Z-line targeting of SH3 and linker domains. Cell Motil. Cytoskeleton 44: 1-22.
4. Arimura, T., et al. 2000. Characterization of the human nebulette gene: a polymorphism in an actin-binding motif is associated with nonfamilial idiopathic dilated cardiomyopathy. Hum. Genet. 107: 440-451.
5. Moncman, C.L., et al. 2000. Architecture of the thin filament-Z-line junction: lessons from nebulette and nebulin homologies. J. Muscle Res. Cell Motil. 21: 153-169.
6. Fock, U., et al. 2002. Nebulin is a thin filament protein of the cardiac muscle of the agnthans. J. Muscle Res. Cell Motil. 23: 205-213.
7. Ogut, O., et al. 2003. Interactions between nebulin-like motifs and thin filament regulatory proteins. J. Biol. Chem. 278: 3089-3097.
8. SWISS-PROT/TrEMBL (O76041). World Wide Web URL: http://www.expasy.ch/sprot/sprot-top.html

CHROMOSOMAL LOCATION

Genetic locus: NEBL (human) mapping to 10p12.31.

SOURCE

Nebulette (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Nebulette 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-28120 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

Nebulette (N-15) is recommended for detection of Nebulette of 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).

Suitable for use as control antibody for Nebulette siRNA (h): sc-106293, Nebulette shRNA Plasmid (h): sc-106293-SH and Nebulette shRNA (h) Lentiviral Particles: sc-106293-V.

Molecular Weight (predicted) of human Nebulette: 116 kDa.

Molecular Weight (predicted) of mouse Nebulette: 52 kDa.

Molecular Weight (observed) of human Nebulette: 126 kDa.

Molecular Weight (observed) of mouse Nebulette: 125 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 or our catalog for detailed protocols and support products.