SANTA CRUZ BIOTECHNOLOGY, INC.

Myonectin (P-18): sc-246567

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Peptides called myokines are produced and secreted by the skeletal muscle and mediate communication between muscle and liver, adipose tissue, brain, and other organs. During physical exercise, mytokines are overexpressed and are suggested to contribute to the benefits of exercise to metabolic homeostasis. Myonectin, also known as Erythroferrone, FAM132B, CTRP15 or C1QTNF15, is a 354 amino acid skeletal muscle-derived myokine belonging to the CTRP superfamily. Containing one C1q domain, Myonectin may exists as a homodimer and form heteromeric complexes with CTRP2, C1QDC2, CTRP5 and C1qL2. A precusor to Irisin, Myonectin is thought to play a role in fatty acid uptake and oxidation in adipose tissue and liver, and may serve as a novel regulator of cellular autophagy. Myonectin is encoded by a gene located on human chromosome 2q37.3.

REFERENCES

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3. Seldin, M.M., Lei, X., Tan, S.Y., Stanson, K.P., Wei, Z. and Wong, G.W. 2013. Skeletal muscle-derived myonectin activates the mammalian target of rapamycin (mTOR) pathway to suppress autophagy in liver. J. Biol. Chem. 288: 36073-36082.
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5. Peterson, J.M., Mart, R. and Bond, C.E. 2014. Effect of obesity and exercise on the expression of the novel myokines, Myonectin and Fibronectin type III domain containing 5. PeerJ 2: e605.
6. Ahima, R.S. and Park, H.K. 2015. Connecting myokines and metabolism. Endocrinol. Metab. 30: 235-245.
7. Gamas, L., Matafome, P. and Seiça, R. 2015. Irisin and Myonectin regulation in the Insulin resistant muscle: implications to adipose tissue: muscle crosstalk. J. Diabetes Res. 2015: 359159.
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CHROMOSOMAL LOCATION

Genetic locus: Fam132b (mouse) mapping to 1 D.

SOURCE

Myonectin (P-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Myonectin of mouse origin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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-246567 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Myonectin (P-18) is recommended for detection of FAM132B of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Suitable for use as control antibody for Myonectin siRNA (m): sc-141631, Myonectin shRNA Plasmid (m): sc-141631-SH and Myonectin shRNA (m) Lentiviral Particles: sc-141631-V.

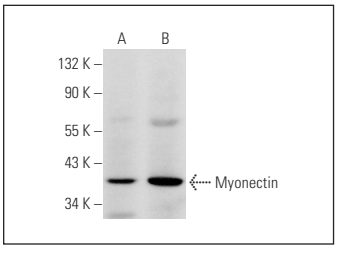
Molecular Weight of Myonectin: 37 kDa.

Positive Controls: mouse liver extract: sc-2256 or mouse heart extract: sc-2254.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Myonectin (P-18): sc-246567. Western blot analysis of Myonectin expression in mouse liver (**A**) and mouse heart (**B**) tissue extracts.

STORAGE

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