Members of the leiomodin protein family are closely related to the tropomodulin family of actin filament pointed-end-capping proteins. Leiomodins are characterized as actin-binding proteins that act as strong filament nucleators in muscle cells. Leiomodin 1, also known as 64 kDa autoantigen D1 or SM-Lmod, is a 600 amino acid protein that is highly expressed in a variety of tissues that contain smooth muscle and is expressed at lower levels in thyroid and extracellular muscles. Analyzing sera from patients with Hashimoto thyroiditis with thyroid-associated ophthalmopathy (TAO) revealed that antibodies against Leiomodin 1 had been produced in 8 out of 34 patients, while all 12 normal and nonautoimmune individuals were negative. There are two isoforms of Leiomodin 1, which are produced as a result of alternative splicing events.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: LMOD1 (human) mapping to 1q32.1; Lmod1 (mouse) mapping to 1 E4.

SOURCE

Leiomodin 1 (H-90) is a rabbit polyclonal antibody raised against amino acids 51-140 mapping near the N-terminus of Leiomodin 1 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.

APPLICATIONS

Leiomodin 1 (H-90) is recommended for detection of Leiomodin 1 isoforms 1 and 2 of mouse, rat and human 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).

Leiomodin 1 (H-90) is also recommended for detection of Leiomodin 1 isoforms 1 and 2 in additional species, including equine and canine.


Molecular Weight of Leiomodin 1: 64 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-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. 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.

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 or our catalog for detailed protocols and support products.