

LETM1 (E-14): sc-163011

BACKGROUND

LETM1 (leucine zipper-EF-hand-containing transmembrane protein 1, mitochondrial) is a 739 amino acid protein that localizes to the mitochondrial membrane and contains one LETM1 domain and 2 EF-hand calcium-binding domains. Expressed in all fetal and adult tissues, LETM1 has a leucine zipper motif, a transmembrane domain and several phosphorylation sites and, via its EF-hand domains, may function as a calcium-binding protein. Additionally, LETM1 is thought to be involved in maintaining normal mitochondrial function and overall cell viability. Human LETM1 shares 84% similarity with its mouse counterpart, suggesting a conserved role between species. Deletions in the gene encoding LETM1 are associated with Wolf-Hirschhorn syndrome (WHS), a congenital syndrome characterized by a number of abnormalities, including mental retardation, seizures, heart defects, fused teeth, hearing loss, a webbed neck and renal abnormalities.

CHROMOSOMAL LOCATION

Genetic locus: LETM1 (human) mapping to 4p16.3; Letm1 (mouse) mapping to 5 B2.

SOURCE

LETM1 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LETM1 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-163011 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

LETM1 (E-14) is recommended for detection of LETM1 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); non cross-reactive with LETM2.

LETM1 (E-14) is also recommended for detection of LETM1 in additional species, including equine and bovine.

Suitable for use as control antibody for LETM1 siRNA (h): sc-89079, LETM1 siRNA (m): sc-146712, LETM1 shRNA Plasmid (h): sc-89079-SH, LETM1 shRNA Plasmid (m): sc-146712-SH, LETM1 shRNA (h) Lentiviral Particles: sc-89079-V and LETM1 shRNA (m) Lentiviral Particles: sc-146712-V.

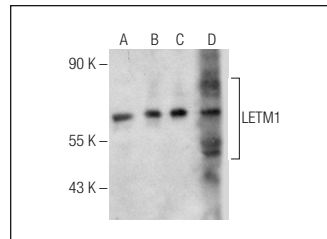
Molecular Weight of LETM1: 85 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, F9 cell lysate: sc-2245 or Ramos cell lysate: sc-2216.

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



LETM1 (E-14): sc-163011. Western blot analysis of LETM1 expression in Jurkat (A), Ramos (B) and F9 (C) whole cell lysates and rat testis tissue extract (D).

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.

MONOS
Satisfaction
Guaranteed

Try **LETM1 (D-5): sc-271235** or **LETM1 (D-11): sc-514136**, our highly recommended monoclonal alternatives to LETM1 (E-14).