

TARSL1 (S-13): sc-165652

BACKGROUND

TARSL1, also known as TARS2 (threonyl-tRNA synthetase 2, mitochondrial) or ThrRS (threonine-tRNA ligase), is a 718 amino acid mitochondrial matrix protein that belongs to the class-II aminoacyl-tRNA synthetase family. The gene encoding TARSL1 maps to human chromosome 1q21.3. Chromosome 1 is the largest human chromosome spanning approximately 260 million base pairs, 3,000 genes, and making up 8% of the human genome. The rare aging disease Hutchinson-Gilford progeria is associated with the LMNA gene located on chromosome 1. When defective, the LMNA gene product can build up in the nucleus and cause characteristic nuclear blebs. The MUTYH gene, also located on chromosome 1, is partially responsible for familial adenomatous polyposis. Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome are also associated with chromosome 1. A breakpoint has been identified in 1q which disrupts the DISC1 gene and is linked to schizophrenia. Aberrations in chromosome 1 are found in a variety of cancers including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TARS2 (human) mapping to 1q21.3; Tars2 (mouse) mapping to 3 F2.1.

SOURCE

TARSL1 (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TARSL1 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-165652 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TARSL1 (S-13) is recommended for detection of TARSL1 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); non cross-reactive with TARSL2.

Suitable for use as control antibody for TARSL1 siRNA (h): sc-88015, TARSL1 siRNA (m): sc-154074, TARSL1 shRNA Plasmid (h): sc-88015-SH, TARSL1 shRNA Plasmid (m): sc-154074-SH, TARSL1 shRNA (h) Lentiviral Particles: sc-88015-V and TARSL1 shRNA (m) Lentiviral Particles: sc-154074-V.

Molecular Weight of TARSL1: 81 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 or our catalog for detailed protocols and support products.