SANTA CRUZ BIOTECHNOLOGY, INC.

ThrRS (TARSF8H3): sc-81409

BACKGROUND

Aminoacyl-tRNA synthetases function to catalyze the aminoacylation of tRNAs by their corresponding amino acids, thus linking amino acids with tRNA-contained nucleotide triplets. ThrRS (threonyl-tRNA synthetase), also known as TARS, is a 723 amino acid member of the class-II aminoacyl-tRNA synthetase family that catalyzes the tRNAThr-threonine aminoacylation reaction. Localized to the cytoplasm, ThrRS contains a zinc-binding catalytic domain, a C-terminal tRNA-binding domain and an N-terminal editing domain. ThrRS has four mobile regions, three of which have a key residue that changes conformation throughout catalysis, thereby mediating the dynamics of the tRNA-amino acid reaction. The fourth mobile region contains an ordering loop which helps to close the active site once the substrate (threonine) is in place.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TARS (human) mapping to 5p13.2; Tars (mouse) mapping to 15 A1.

SOURCE

ThrRS (TARSF8H3) is a mouse monoclonal antibody raised against a recombinant protein corresponding to an internal region of ThrRS of human origin.

PRODUCT

Each vial contains 100 µg IgG2a in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

APPLICATIONS

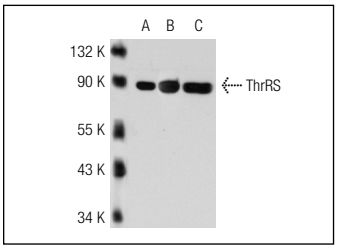
ThrRS (TARSF8H3) is recommended for detection of ThrRS of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1–2 µg per 100–500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10^6 cells).

Suitable for use as control antibody for ThrRS siRNA (h): sc-76658, ThrRS shRNA Plasmid (h): sc-76658-SH and ThrRS shRNA (h) Lentiviral Particles: sc-76658-V.

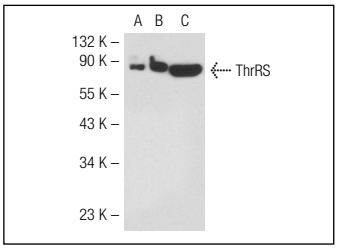
Molecular Weight of ThrRS: 83 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, ThrRS (h): 293T Lysate: sc-113560 or ThrRS (h3): 293T Lysate: sc-170842.

DATA



ThrRS (TARSF8H3): sc-81409. Western blot analysis of ThrRS expression in non-transfected 293T: sc-117752 (**A**), human ThrRS transfected 293T: sc-113560 (**B**) and HeLa (**C**) whole cell lysates.



ThrRS (TARSF8H3): sc-81409. Western blot analysis of ThrRS expression in non-transfected 293T: sc-117752 (**A**), human ThrRS transfected 293T: sc-170842 (**B**) and HeLa (**C**) whole cell lysates.

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 for detailed protocols and support products.