

TyrRS (N-16): sc-26207

BACKGROUND

Tryptophanyl-tRNA synthetases are essential enzymes that catalyze the aminoacylation of tRNA(trp) with tryptophan, an essential function of the cell's protein synthesis machinery. Two forms of tryptophanyl-tRNA synthetase exist; a cytoplasmic form, named TrpRS (also known as WARS), and a mitochondrial form, named WARS2. In normal cells, human TrpRS exists as a full length form and as a truncated form designated mini TrpRS, which is produced by alternative splicing. Expression of mini TrpRs is highly stimulated in human cells by the addition of IFN γ . Although both human full-length TrpRS and mini TrpRS are enzymatically active in aminoacylation, they differ in angiostatic activity. The tyrosyl-tRNA synthetase (TyrRS), a protein related to TrpRS, exists as a homodimeric enzyme that catalyzes the aminoacylation of tRNA(Tyr) by L-tyrosine.

CHROMOSOMAL LOCATION

Genetic locus: YARS (human) mapping to 1p35.1; Yars (mouse) mapping to 4 D2.2.

SOURCE

TyrRS (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TyrRS of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-26207 P, (100 μ g 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

TyrRS (N-16) is recommended for detection of TyrRS of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

TyrRS (N-16) is also recommended for detection of TyrRS in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TyrRS siRNA (h): sc-37671, TyrRS siRNA (m): sc-37672, TyrRS shRNA Plasmid (h): sc-37671-SH, TyrRS shRNA Plasmid (m): sc-37672-SH, TyrRS shRNA (h) Lentiviral Particles: sc-37671-V and TyrRS shRNA (m) Lentiviral Particles: sc-37672-V.

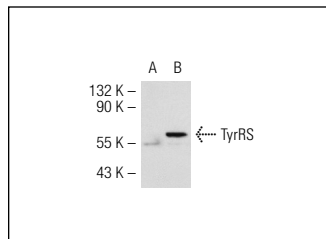
Molecular Weight of TyrRS: 59 kDa.

Positive Controls: TyrRS (h2): 293T Lysate: sc-170741, NIH/3T3 whole cell lysate: sc-2210 or HeLa whole cell lysate: sc-2200.

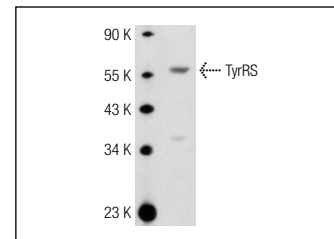
RECOMMENDED SECONDARY REAGENTS

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



TyrRS (N-16): sc-26207. Western blot analysis of TyrRS expression in non-transfected: sc-117752 (A) and human TyrRS transfected: sc-170741 (B) 293T whole cell lysates.



TyrRS (N-16): sc-26207. Western blot analysis of TyrRS expression in HeLa whole cell lysate.

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 **TyrRS (H-11): sc-166741** or **TyrRS (A-10): sc-393787**, our highly recommended monoclonal alternatives to TyrRS (N-16).