

MetRS (H-300): sc-98558

BACKGROUND

MetRS is a cytoplasmic methionyl-tRNA synthetase. It belongs to the class-I aminoacyl-tRNA synthetase family and contains one GST-like domain and one WHEP-TRS domain. MetRS is an enzyme that catalyzes the esterification of a Met residue to its compatible cognate tRNA to form Met-tRNA. This enzyme performs its functions with high precision by synchronously recognizing the anticodon region and the aminoacylation region, which are separated by approximately 70 angstroms in space. MetRS is thereby considered allosteric, in that its trinucleotide anticodons bind the enzyme at a site removed from its catalytic domains.

REFERENCES

1. Lage, H. and Dietel, M. 1996. Cloning of a human cDNA encoding a protein with high homology to yeast methionyl-tRNA synthetase. *Gene* 178: 187-189.
2. Ko, Y.G., Kang, Y.S., Kim, E.K., Park, S.G. and Kim, S. 2000. Nucleolar localization of human methionyl-tRNA synthetase and its role in ribosomal RNA synthesis. *J. Cell Biol.* 149: 567-574.

CHROMOSOMAL LOCATION

Genetic locus: MARS (human) mapping to 12q13.3; Mars (mouse) mapping to 10 D3.

SOURCE

MetRS (H-300) is a rabbit polyclonal antibody raised against amino acids 121-420 mapping within an internal region of MetRS 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

MetRS (H-300) is recommended for detection of MetRS 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).

MetRS (H-300) is also recommended for detection of MetRS in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MetRS siRNA (h): sc-75775, MetRS siRNA (m): sc-75776, MetRS shRNA Plasmid (h): sc-75775-SH, MetRS shRNA Plasmid (m): sc-75776-SH, MetRS shRNA (h) Lentiviral Particles: sc-75775-V and MetRS shRNA (m) Lentiviral Particles: sc-75776-V.

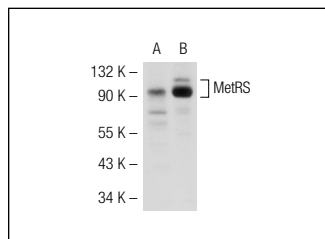
Molecular Weight of MetRS: 101 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or SW480 cell lysate: sc-2219.

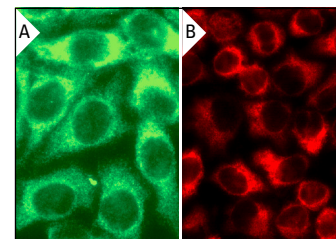
RECOMMENDED SECONDARY REAGENTS

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-2003 (0.5 ml agarose/2.0 ml). 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.

DATA



MetRS (H-300): sc-98558. Western blot analysis of MetRS expression in HeLa (A) and SW480 (B) whole cell lysates.



MetRS (H-300): sc-98558. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A,B).

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.


 MONOS
Satisfaction
Guaranteed

Try **MetRS (H-1): sc-166850**, our highly recommended monoclonal alternative to MetRS (H-300).