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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# TyrRS (m3): 293T Lysate: sc-126172

## BACKGROUND

Tryptophanyl-tRNA synthetases are essential enzymes that catalyze the aminoacylation of tRNA<sup>Trp</sup> 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- $\gamma$ . 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<sup>Tyr</sup> by L-tyrosine.

## REFERENCES

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6. Bonnefond, L., Frugier, M., Giege, R. and Rudinger-Thirion, J. 2005. Human mitochondrial TyrRS disobeys the tyrosine identity rules. *RNA* 11: 558-562.
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## CHROMOSOMAL LOCATION

Genetic locus: Yars (mouse) mapping to 4 D2.2.

## PRODUCT

TyrRS (m3): 293T Lysate represents a lysate of mouse TyrRS transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## APPLICATIONS

TyrRS (m3): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive TyrRS antibodies. Recommended use: 10-20  $\mu$ l per lane.

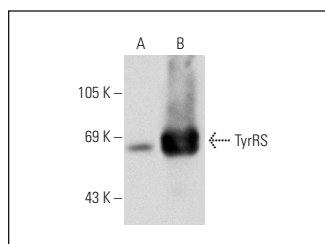
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

TyrRS (H-11): sc-166741 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse TyrRS expression in TyrRS transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



TyrRS (H-11): sc-166741. Western blot analysis of TyrRS expression in non-transfected: sc-117752 (A) and mouse TyrRS transfected: sc-126172 (B) 293T whole cell lysates.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.