

GlnRS (h3): 293T Lysate: sc-113657

BACKGROUND

Aminoacyl-tRNA synthetases function to catalyze the aminoacylation of tRNAs by their corresponding amino acids, thus linking amino acids with tRNA-containing nucleotide triplets. GlnRS (glutamyl-tRNA synthetase), also known as QARS, is a 775 amino acid member of the class-I aminoacyl-tRNA synthetase family. Localized to the cytoplasm, GlnRS is part of a multi-protein complex composed of nine aminoacyl-tRNA synthetases that are specific for nine amino acids, namely Arg, Asp, Glu, Gln, Ile, Leu, Lys, Met and Pro. In this complex, GlnRS functions to catalyze the ATP-dependent conversion of L-glutamine (Gln) and tRNA^{Gln} to Gln-tRNA^{Gln}. While GlnRS is used to synthesize Gln-tRNA^{Gln} in many eukaryotic cells, prokaryotes and organelles, such as mitochondria and chloroplasts, can synthesize Gln-tRNA^{Gln} in a two step process involving misacylation and amidation reactions.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: QARS (human) mapping to 3p21.31.

PRODUCT

GlnRS (h3): 293T Lysate represents a lysate of human GlnRS transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

GlnRS (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive GlnRS antibodies. Recommended use: 10-20 μ l per lane.

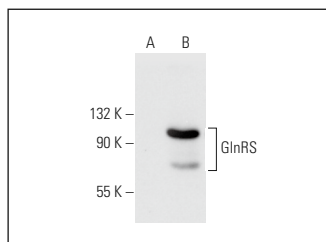
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

GlnRS (F-4): sc-166241 is recommended as a positive control antibody for Western Blot analysis of enhanced human GlnRS expression in GlnRS 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 κ BP-HRP: sc-516102 or m-IgG κ 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



GlnRS (F-4): sc-166241. Western blot analysis of GlnRS expression in non-transfected: sc-117752 (A) and human GlnRS transfected: sc-113657 (B) 293T whole cell lysates.

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.

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.