

PARS2 (D-16): sc-243740

BACKGROUND

The fidelity of protein synthesis requires efficient discrimination of amino acid substrates by aminoacyl-tRNA synthetases. Aminoacyl-tRNA synthetases function to catalyze the aminoacylation of tRNAs by their corresponding amino acids, thus linking amino acids with tRNA-contained nucleotide triplets. PARS2 (prolyl-tRNA synthetase 2, mitochondrial), also known as MT-PRORS, is a 475 amino acid protein belonging to the class-II aminoacyl-tRNA synthetase family. Localized to the mitochondrial matrix, PARS2 utilizes ATP to catalyze the linking of L-proline and tRNA(Pro). PARS2 has been found to have no significant similarity to ProRS, its cytosolic counterpart.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PARS2 (human) mapping to 1p32.3; Pars2 (mouse) mapping to 4 C7.

RESEARCH USE

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

SOURCE

PARS2 (D-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PARS2 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.

Blocking peptide available for competition studies, sc-243740 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PARS2 (D-16) is recommended for detection of PARS2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

PARS2 (D-16) is also recommended for detection of PARS2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PARS2 siRNA (h): sc-78924, PARS2 siRNA (m): sc-152030, PARS2 shRNA Plasmid (h): sc-78924-SH, PARS2 shRNA Plasmid (m): sc-152030-SH, PARS2 shRNA (h) Lentiviral Particles: sc-78924-V and PARS2 shRNA (m) Lentiviral Particles: sc-152030-V.

Molecular Weight of PARS2: 53 kDa.

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) 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.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.