

ProRS (T-16): sc-74863

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. ProRS (prolyl-tRNA synthetase), also known as EPRS, EARS, PARS, QARS, QPRS, PIG32 or GLUPRORS, is a 1,512 amino acid protein that contains three WHEP-TRS domains and belongs to both the class-I and class-II aminoacyl-tRNA synthetase family. Functioning as a component of the multi-synthase complex, ProRS uses ATP to catalyze the conversion of L-glutamate and tRNA^{Glu} to L-glutamyl-tRNA^{Glu}, as well as the conversion of L-proline and tRNA^{Pro} to L-prolyl-tRNA^{Pro}.

CHROMOSOMAL LOCATION

Genetic locus: EPRS (human) mapping to 1q41; Eprs (mouse) mapping to 1 H5.

SOURCE

ProRS (T-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ProRS 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-74863 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-74863 X, 200 µg/0.1 ml.

APPLICATIONS

ProRS (T-16) is recommended for detection of ProRS 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).

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

Suitable for use as control antibody for ProRS siRNA (h): sc-76254, ProRS siRNA (m): sc-76255, ProRS shRNA Plasmid (h): sc-76254-SH, ProRS shRNA Plasmid (m): sc-76255-SH, ProRS shRNA (h) Lentiviral Particles: sc-76254-V and ProRS shRNA (m) Lentiviral Particles: sc-76255-V.

ProRS (T-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

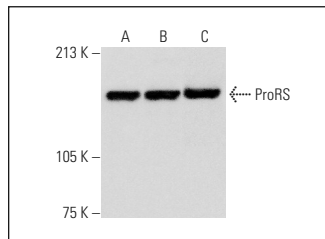
Molecular Weight of ProRS: 172 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HEK293 whole cell lysate: sc-45136 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



ProRS (T-16): sc-74863. Western blot analysis of ProRS expression in Jurkat (A), HEK293 (B) and HeLa (C) whole cell lysates.

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
Satisfation
Guaranteed

Try **ProRS (A-2): sc-393505** or **ProRS (F-3): sc-514407**, our highly recommended monoclonal alternatives to ProRS (T-16).