

## SerRS (P-19): sc-79066

### 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. SerRS (seryl-tRNA synthetase), also known as SERS or SARS, is a 514 amino acid member of the class-II aminoacyl-tRNA synthetase family that catalyzes the tRNA<sup>Ser</sup>-serine aminoacylation reaction. Localized to the cytoplasm, SerRS exists as a homodimer and contains a core catalytic domain and a tRNA-binding domain. In addition to recognizing and serylating tRNA<sup>Ser</sup>, SerRS can also recognize and serylate tRNA<sup>Sec</sup> (tRNA<sup>selenocysteine</sup>). Via this interaction, SerRS is implicated in selenocysteine (Sec) biosynthesis.

### CHROMOSOMAL LOCATION

Genetic locus: SARS (human) mapping to 1p13.3; Sars (mouse) mapping to 3 F3.

### SOURCE

SerRS (P-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SerRS 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-79066 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### STORAGE

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

### APPLICATIONS

SerRS (P-19) is recommended for detection of SerRS 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).

SerRS (P-19) is also recommended for detection of SerRS in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SerRS siRNA (h): sc-76480, SerRS siRNA (m): sc-76481, SerRS shRNA Plasmid (h): sc-76480-SH, SerRS shRNA Plasmid (m): sc-76481-SH, SerRS shRNA (h) Lentiviral Particles: sc-76480-V and SerRS shRNA (m) Lentiviral Particles: sc-76481-V.

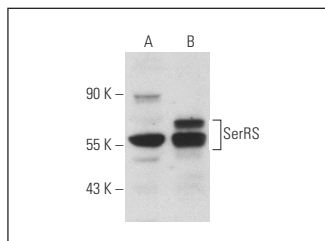
Molecular Weight of SerRS: 59 kDa.

Positive Controls: SerRS (h): 293T Lysate: sc-170165, K-562 whole cell lysate: sc-2203 or Jurkat whole cell lysate: sc-2204.

### 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



SerRS (P-19): sc-79066. Western blot analysis of SerRS expression in non-transfected: sc-117752 (A) and human SerRS transfected: sc-170165 (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) or our catalog for detailed protocols and support products.



Try **SerRS (C-2): sc-271032**, our highly recommended monoclonal alternative to SerRS (P-19).