

Asparagine synthetase (H-250): sc-135183

BACKGROUND

Glutamine-hydrolyzing Asparagine synthetase is also commonly designated cell cycle control protein TS11. Asparagine synthetase plays an important role in the amino-acid biosynthesis pathway and is also important for L-asparagine biosynthesis. Via the L-glutamine route, it is involved in the synthesis of L-asparagine from L-aspartate. The protein contains one Asparagine synthetase domain and one type-2 glutamine amidotransferase domain. The cell-cycle regulated gene encoding for Asparagine synthetase, ts11, is necessary for G₁ progression.

REFERENCES

1. Andrulis, I.L., et al. 1987. Isolation of human cDNAs for Asparagine synthetase and expression in Jensen rat sarcoma cells. *Mol. Cell. Biol.* 7: 2435-2443.
2. Van Heeke, G. and Schuster, S.M. 1989. The N-terminal cysteine of human Asparagine synthetase is essential for glutamine-dependent activity. *J. Biol. Chem.* 264: 19475-19477.

CHROMOSOMAL LOCATION

Genetic locus: ASNS (human) mapping to 7q21.3; Asns (mouse) mapping to 6 A1.

SOURCE

Asparagine synthetase (H-250) is a rabbit polyclonal antibody raised against amino acids 1-250 mapping at the N-terminus of Asparagine synthetase 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.

APPLICATIONS

Asparagine synthetase (H-250) is recommended for detection of Asparagine synthetase 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). Asparagine synthetase (H-250) is also recommended for detection of Asparagine synthetase in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Asparagine synthetase siRNA (h): sc-60212, Asparagine synthetase siRNA (m): sc-60213, Asparagine synthetase shRNA Plasmid (h): sc-60212-SH, Asparagine synthetase shRNA Plasmid (m): sc-60213-SH, Asparagine synthetase shRNA (h) Lentiviral Particles: sc-60212-V and Asparagine synthetase shRNA (m) Lentiviral Particles: sc-60213-V.

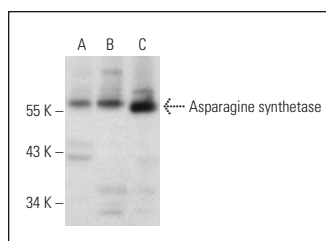
Molecular Weight of Asparagine synthetase: 64 kDa.

Positive Controls: RT-4 whole cell lysate: sc-364257, A-431 whole cell lysate: sc-2201 or U-251-MG whole cell lysate: sc-364176.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Asparagine synthetase (H-250): sc-135183. Western blot analysis of Asparagine synthetase expression in RT-4 (A), U-251-MG (B) and A-431 (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.



Try **Asparagine synthetase (G-10): sc-365809** or **Asparagine synthetase (F-3): sc-376151**, our highly recommended monoclonal alternatives to Asparagine synthetase (H-250). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Asparagine synthetase (G-10): sc-365809**.