

Elongin A (S-20): sc-23404

BACKGROUND

Individuals harboring germline mutations in the tumor suppressor gene von Hippel-Lindau (VHL) exhibit an increased susceptibility to a variety of tumors including renal carcinoma, hemangio-blastoma of the central nervous system and pheochromocytoma. The Elongin (SIII) complex has been identified as the functional target of the VHL protein. Elongin (SIII) is a heterotrimer composed of a transcriptional active subunit designated Elongin A and two regulatory subunits designated Elongin B and Elongin C. VHL functions by binding to the Elongin B and C subunits, inhibiting the transcriptional efficacy of the Elongin (SIII) complex.

REFERENCES

- Garrett, K.P., et al. 1994. Molecular cloning of an essential subunit of RNA polymerase II elongation factor SIII. *Proc. Natl. Acad. Sci. USA* 91: 5237-5241.
- Krumm, A., et al. 1995. Tumor suppression and transcription elongation: the dire consequences of changing partners. *Science* 269: 1400-1401.
- Duan, D.R., et al. 1995. Inhibition of transcription elongation by the VHL tumor suppressor protein. *Science* 269: 1402-1406.
- Aso, T., et al. 1995. Elongin (SIII): a multisubunit regulator of elongation by RNA polymerase II. *Science* 269: 1439-1443.
- Gross, D.J., et al. 1996. Familial pheochromocytoma associated with a novel mutation in the von Hippel-Lindau gene. *J. Clin. Endocrin. Metab.* 81: 147-149.
- Waber, P.G., et al. 1996. Frequent allelic loss at chromosome arm 3p is distinct from genetic alterations of the von Hippel-Lindau tumor suppressor gene in head and neck cancer. *Oncogene* 12: 365-369.
- Tamura, K., et al. 2003. Identification of EloA-BP1, a novel Elongin A binding protein with an exonuclease homology domain. *Biochem. Biophys. Res. Commun.* 309: 189-195.

CHROMOSOMAL LOCATION

Genetic locus: TCEB3 (human) mapping to 1p36.11; Tceb3 (mouse) mapping to 4 D3.

SOURCE

Elongin A (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Elongin A 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-23404 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

Elongin A (S-20) is recommended for detection of Elongin A 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).

Elongin A (S-20) is also recommended for detection of Elongin A in additional species, including equine and canine.

Suitable for use as control antibody for Elongin A siRNA (h): sc-35292, Elongin A siRNA (m): sc-35293, Elongin A shRNA Plasmid (h): sc-35292-SH, Elongin A shRNA Plasmid (m): sc-35293-SH, Elongin A shRNA (h) Lentiviral Particles: sc-35292-V and Elongin A shRNA (m) Lentiviral Particles: sc-35293-V.

Molecular Weight of Elongin A: 110 kDa.

Positive Controls: Mouse testes extract: sc-2405, HeLa nuclear extract: sc-2120 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) 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.

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.