SANTA CRUZ BIOTECHNOLOGY, INC.

Elongin A2 (D-20): sc-54188



BACKGROUND

The Elongin (SIII) complex is a heterotrimer composed of a transcriptionally active subunit and two regulatory subunits designated Elongin B and Elongin C. The active subunit of the heterotrimer is either Elongin A, Elongin A2 or Elongin A3. Elongin A2, also known as transcription elongation factor B polypeptide 3B (TCEB3B), is specifically expressed in the testis and may regulate the transcription of testis-specific genes and play an important role in sperm-atogenesis. It shares 81% identity with Elongin A3 and 47% identity with Elongin A. Unlike Elongin A2, acts to increase the rate of transcription elongation by RNA polymerase II. The Elongin complex (SIII) is a functional target of the von Hippel-Lindau (VHL) protein. VHL functions by binding to the Elongin B and C subunits and inhibiting the transcriptional efficacy of the Elongin (SIII) complex.

REFERENCES

- 1. 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.
- 2. Krumm, A., et al. 1995. Tumor suppression and transcription elongation: the dire consequences of changing partners. Science 269: 1400-1401.
- 3. 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. Endocrinol. 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.
- Aso, T., et al. 2000. Identification and characterization of Elongin A2, a new member of the Elongin family of transcription elongation factors, specifically expressed in the testis. J. Biol. Chem. 275: 6546-6552.
- Yamazaki, K., et al. 2002. Identification and biochemical characterization of a novel transcription elongation factor, Elongin A3. J. Biol. Chem. 277: 26444-26451.
- 9. Shilatifard, A., et al. 2003. The RNA polymerase II elongation complex. Annu. Rev. Biochem. 72: 693-715.

STORAGE

Store at 4° C, **D0 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.

CHROMOSOMAL LOCATION

Genetic locus: TCEB3B (human) mapping to 18q21.1.

SOURCE

Elongin A2 (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Elongin A2 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-54188 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Elongin A2 (D-20) is recommended for detection of Elongin A2 of 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).

Suitable for use as control antibody for Elongin A2 siRNA (h): sc-72311.

Molecular Weight of Elongin A2: 100 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) Immunofluo-rescence: use 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.