SANTA CRUZ BIOTECHNOLOGY, INC.

Elongin A3 (S-16): sc-84811

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The elongin (SIII) complex is composed of a transcriptionally active A subunit and two small regulatory subunits, B and C. This complex stimulates the transcription elongation rate of RNA polyermase II by suppressing time spent at template-encoded arresting sites along DNA. Elongin A3, also known as RNA polymerase II transcription factor SIII subunit A3 and Transcription elongation factor B polypeptide 3C, is a 546 amino acid nuclear protein that functions as a general transcription elongation factor that increases RNA polymerase II transcription elongation and forms a stable complex with Elongin BC. In contrast to Elongin A, transcriptional activity of Elongin A3 is not stimulated by Elongin BC. Elongin A3 contains one TFIIS N-terminal domain and is ubiquitously expressed in human tissue.

REFERENCES

1. Aso, T., et al. 1995. Elongin (SIII): a multisubunit regulator of elongation by RNA polymerase II. Science 269: 1439-1443.
2. Aso, T., et al. 1996. The inducible Elongin A elongation activation domain: structure, function and interaction with the elongin BC complex. EMBO J. 15: 5557-5566.
3. Shilatifard, A. 1998. Factors regulating the transcriptional elongation activity of RNA polymerase II. FASEB J. 12: 1437-1446.
4. Conaway, J.W. and Conaway, R.C. 1999. Transcription elongation and human disease. Annu. Rev. Biochem. 68: 301-319.
5. Elmendorf, B.J., et al. 2001. Transcription factors TFIIF, ELL, and Elongin negatively regulate SII-induced nascent transcript cleavage by non-arrested RNA polymerase II elongation intermediates. J. Biol. Chem. 276: 23109-23114.
6. Strichman-Almashanu, L.Z., et al. 2002. A genome-wide screen for normally methylated human CpG islands that can identify novel imprinted genes. Genome Res. 12: 543-554.
7. Yamazaki, K., et al. 2002. Identification and biochemical characterization of a novel transcription elongation factor, Elongin A3. J. Biol. Chem. 277: 26444-26451.

CHROMOSOMAL LOCATION

Genetic locus: TCEB3C (human) mapping to 18q21.1, TCEB3CL2 (human) mapping to 18q21.1.

SOURCE

Elongin A3 (S-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of Elongin A3 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-84811 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Elongin A3 (S-16) is recommended for detection of Elongin A3 and TCEB3CL2 of 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); non cross-reactive with other Elongin family members.

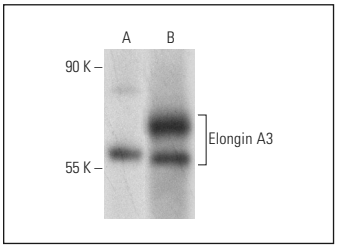
Molecular Weight of Elongin A3: 60 kDa.

Positive Controls: human colon extract: sc-363757 or human kidney extract: sc-363764.

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



Elongin A3 (S-16): sc-84811. Western blot analysis of Elongin A3 expression in human colon (**A**) and human kidney (**B**) tissue extracts.

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.