

SECp43 (m): 293T Lysate: sc-125974

BACKGROUND

SECp43, also known as tRNA (Sec) selenocysteine 1-associated protein 1 or TRNAU1AP, is a 287 amino acid member of the RRM TRSPAP protein family. Localized to the nucleus and cytoplasm, yet found more abundantly in the nucleus, SECp43 contains two RRM (RNA recognition motif) domains. The RRM domain contains two highly conserved regions: a six amino acid, hydrophobic motif (RNP-2) and an octapeptide motif (RNP-1). SECp43 is involved in the early stages of selenocysteine biosynthesis and tRNA charging. It is also involved in the later stages of the cotranslational incorporation of selenocysteine into selenoproteins. Possibly involved in the methylation of tRNA, SECp43 associates with mRNP, SELB, SBP-2 and tRNA. Two isoforms of SECp43 exist as a result of alternative splicing events.

REFERENCES

1. Low, S.C., et al. 1996. Knowing when not to stop: selenocysteine incorporation in eukaryotes. *Trends Biochem. Sci.* 21: 203-208.
2. Ding, F., et al. 1999. Identification of a protein component of a mammalian tRNA(Sec) complex implicated in the decoding of UGA as selenocysteine. *RNA* 5: 1561-1569.
3. Krol, A. 2002. Evolutionarily different RNA motifs and RNA-protein complexes to achieve selenoprotein synthesis. *Biochimie* 84: 765-774.
4. Lescure, A., et al. 2002. Protein factors mediating selenoprotein synthesis. *Curr. Protein Pept. Sci.* 3: 143-151.
5. Xu, X.M., et al. 2005. Evidence for direct roles of two additional factors, SECp43 and soluble liver antigen, in the selenoprotein synthesis machinery. *J. Biol. Chem.* 280: 41568-41575.
6. Small-Howard, A., et al. 2006. Supramolecular complexes mediate selenocysteine incorporation *in vivo*. *Mol. Cell. Biol.* 26: 2337-2346.
7. Hoffmann, P.R., et al. 2007. The selenoproteome exhibits widely varying, tissue-specific dependence on selenoprotein P for selenium supply. *Nucleic Acids Res.* 35: 3963-3973.

CHROMOSOMAL LOCATION

Genetic locus: Trna1ap (mouse) mapping to 4 D2.3.

PRODUCT

SECp43 (m): 293T Lysate represents a lysate of mouse SECp43 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

SECp43 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive SECp43 antibodies. Recommended use: 10-20 µl per lane.

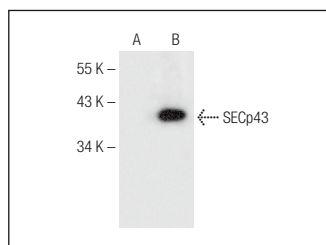
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

SECp43 (E-7): sc-377448 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse SECp43 expression in SECp43 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

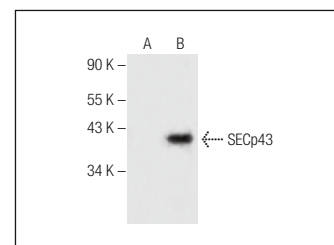
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



SECp43 (E-7): sc-377448. Western blot analysis of SECp43 expression in non-transfected: sc-117752 (A) and mouse SECp43 transfected: sc-125974 (B) 293T whole cell lysates.



SECp43 (F-9): sc-390031. Western blot analysis of SECp43 expression in non-transfected: sc-117752 (A) and mouse SECp43 transfected: sc-125974 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.