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EF-Ts (m): 293T Lysate: sc-119940

BACKGROUND

EF-Ts, also known as TSFM (Ts translation elongation factor, mitochondrial) or COXPD3, is a 325 amino acid protein that is one of 13 mitochondrial-encoded proteins that work together during the elongation phase of protein biosynthesis on the ribosome. Expressed ubiquitously, with highest levels present in liver, kidney and skeletal muscle, EF-Ts associates with EF-Tu, a multi-domain GTPase with essential functions in translation, and, via this interaction, facilitates the exchange of GDP for GTP, thereby inducing protein elongation. Mutations in the gene encoding EF-Ts are the cause of combined oxidative phosphorylation deficiency type 3 (COXPD3), a condition characterized by defects in the mitochondrial oxidative phosphorylation system and often characterized by severe metabolic acidosis with encephalomyopathy or with hypertrophic cardiomyopathy. Multiple isoforms of EF-Ts exist due to alternative splicing events.

REFERENCES

- Xin, H., Woriak, V., Burkhart, W. and Spremulli, L.L. 1995. Cloning and expression of mitochondrial translational elongation factor Ts from bovine and human liver. *J. Biol. Chem.* 270: 17243-17249.
- Benkowski, L.A., Takemoto, C., Ott, G., Beikman, M., Ueda, T., Watanabe, K., Sprinzl, M. and Spremulli, L.L. 1995. Interaction of mitochondrial elongation factors Tu.Ts with aminoacyl-tRNA. *Nucleic Acids Symp. Ser.* 33: 163-166.
- Vernon, J.L., Burr, P.C., Wiley, J.E. and Farwell, M.A. 2000. Assignment of the mitochondrial translation elongation factor Ts gene (TSFM) to human chromosome 12 bands q13→q14 by *in situ* hybridization and with somatic cell hybrids. *Cytogenet. Cell Genet.* 89: 145-146.
- Smeitink, J.A., Elpeleg, O., Antonicka, H., Diepstra, H., Saada, A., Smits, P., Sasarman, F., Vriend, G., Jacob-Hirsch, J., Shaag, A., Rechavi, G., Welling, B., Horst, J., Rodenburg, R.J., van den Heuvel, B. and Shoubbridge, E.A. 2006. Distinct clinical phenotypes associated with a mutation in the mitochondrial translation elongation factor EF-Ts. *Am. J. Hum. Genet.* 79: 869-877.
- Antonicka, H., Sasarman, F., Kennaway, N.G. and Shoubbridge, E.A. 2006. The molecular basis for tissue specificity of the oxidative phosphorylation deficiencies in patients with mutations in the mitochondrial translation factor EFG1. *Hum. Mol. Genet.* 15: 1835-1846.
- Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 604723. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: Tsfm (mouse) mapping to 10 D3.

PRODUCT

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

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

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

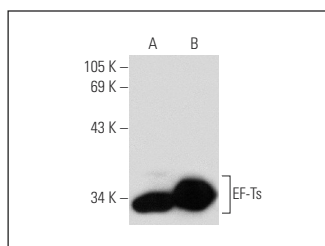
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

EF-Ts (A-10): sc-271588 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse EF-Ts expression in EF-Ts 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



EF-Ts (A-10): sc-271588. Western blot analysis of EF-Ts expression in non-transfected: sc-117752 (A) and mouse EF-Ts transfected: sc-119940 (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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.