

EF-Ts (K-18): sc-79933

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 multidomain 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

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CHROMOSOMAL LOCATION

Genetic locus: TSFM (human) mapping to 12q14.1; Tsfm (mouse) mapping to 10 D3.

SOURCE

EF-Ts (K-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of EF-Ts 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-79933 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

EF-Ts (K-18) is recommended for detection of EF-Ts 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).

EF-Ts (K-18) is also recommended for detection of EF-Ts in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for EF-Ts siRNA (h): sc-77243, EF-Ts siRNA (m): sc-77244, EF-Ts shRNA Plasmid (h): sc-77243-SH, EF-Ts shRNA Plasmid (m): sc-77244-SH, EF-Ts shRNA (h) Lentiviral Particles: sc-77243-V and EF-Ts shRNA (m) Lentiviral Particles: sc-77244-V.

Molecular Weight of EF-Ts: 34 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 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.

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.