

Tom6 (E-6): sc-514967

BACKGROUND

The mitochondrial preprotein translocases of the outer membrane (Tom) form a multisubunit complex that facilitates the import of nuclear-encoded precursor proteins across the mitochondrial outer membrane. The Tom machinery consists of import receptors for the initial binding of cytosolically synthesized preproteins, and a general import pore (GIP) for the membrane translocation of various preproteins into the mitochondrion. Tom6 (translocase of outer mitochondrial membrane 6 homolog (yeast)), also known as OBTP, is a 74 amino acid protein that belongs to the Tom6 family. Localizing to the mitochondrial outer membrane, Tom6 forms part of the preprotein translocase complex of the outer mitochondrial membrane (TOM complex). Tom6 is encoded by a gene located on human chromosome 6p25.3 and mouse chromosome 17 C.

REFERENCES

1. Rapaport, D., et al. 1997. Mitochondrial protein import. Tom40 plays a major role in targeting and translocation of preproteins by forming a specific binding site for the presequence. *J. Biol. Chem.* 272: 18725-18731.
2. Dekker, P.J., et al. 1998. Preprotein translocase of the outer mitochondrial membrane: molecular dissection and assembly of the general import pore complex. *Mol. Cell. Biol.* 18: 6515-6524.
3. Yano, M., et al. 1998. Functional analysis of human mitochondrial receptor Tom20 for protein import into mitochondria. *J. Biol. Chem.* 273: 26844-26851.
4. Rapaport, D. and Neupert, W. 1999. Biogenesis of Tom40, core component of the Tom complex of mitochondria. *J. Cell Biol.* 146: 321-331.
5. Ahting, U., et al. 1999. The TOM core complex: the general protein import pore of the outer membrane of mitochondria. *J. Cell Biol.* 147: 959-968.

CHROMOSOMAL LOCATION

Genetic locus: TOMM6 (human) mapping to 6p25.3; Tomm6 (mouse) mapping to 17 C.

SOURCE

Tom6 (E-6) is a mouse monoclonal antibody raised against amino acids 21-74 mapping at the C-terminus of Tom6 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Tom6 (E-6) is available conjugated to agarose (sc-514967 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514967 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514967 PE), fluorescein (sc-514967 FITC), Alexa Fluor® 488 (sc-514967 AF488), Alexa Fluor® 546 (sc-514967 AF546), Alexa Fluor® 594 (sc-514967 AF594) or Alexa Fluor® 647 (sc-514967 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514967 AF680) or Alexa Fluor® 790 (sc-514967 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Tom6 (E-6) is recommended for detection of Tom6 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Tom6 siRNA (m): sc-152464, Tom6 shRNA Plasmid (m): sc-152464-SH and Tom6 shRNA (m) Lentiviral Particles: sc-152464-V.

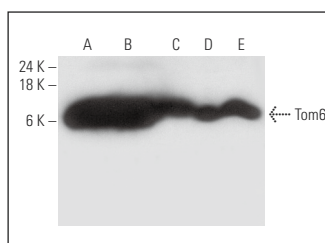
Molecular Weight of Tom6: 8 kDa.

Positive Controls: HEL 92.1.7 cell lysate: sc-2270, Hep G2 cell lysate: sc-2227 or MCF7 whole cell lysate: sc-2206.

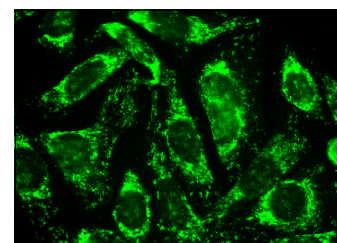
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Tom6 (E-6): sc-514967. Western blot analysis of Tom6 expression in Hep G2 (A), HEL 92.1.7 (B) and MCF7 (C) whole cell lysates and human skeletal muscle (D) and human liver (E) tissue extracts.



Tom6 (E-6): sc-514967. Immunofluorescence staining of formalin-fixed SW480 cells showing mitochondrial localization.

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 for detailed protocols and support products.