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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
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SANTA CRUZ BIOTECHNOLOGY, INC.

Tim10 (H-4): sc-518253

BACKGROUND

The majority of mitochondrial-directed proteins are encoded by the nuclear genome and are transported to the mitochondria via regulated processes involving the mitochondrial Tom and Tim proteins. The mitochondrial Tim protein family is comprised of a large group of evolutionarily conserved proteins that are found in most eukaryotes. Import of nuclear-encoded precursor proteins into and across the mitochondrial inner membrane is mediated by two distinct complexes, the Tim23 complex and the Tim22 compex, which differ in their substrate specificity. Defects in Tim proteins are implicated in several neuro-degenerative diseases, suggesting important roles for Tim proteins in development and health. Tim10, which maps to human chromosome 11q12.1-q12.3, forms heteromeric complexes with Tim9 and Tim12. One complex contains Tim9 and Tim10, which cross-links to the carboxy-terminal domain of Tim23. The carboxy-terminal domain of Tim23 carries all the targeting signals for Tim23, suggesting important role for the Tim9-Tim10 complex in Tim23 import. The other complex contains Tim9, Tim10 and Tim12, which associates with Tim22.

REFERENCES

1. Bauer, M.F. and Neupert, W. 2001. Import of proteins into mitochondria: a novel pathomechanism for progressive neurodegeneration. J. Inherit. Metab. Dis. 24: 166-180.
2. Jin, H., et al. 1999. The human family of Deafness/Dystonia peptide (DDP) related mitochondrial import proteins. Genomics 61: 259-267.
3. Bauer, M.F., et al. 1999. The mitochondrial TIM22 preprotein translocase is highly conserved throughout the eukaryotic kingdom. FEBS Lett. 464: 41-47.
4. Rassow, J., et al. 1999. The preprotein translocase of the mitochondrial inner membrane: function and evolution. J. Mol. Biol. 286: 105-120.
5. Adam, A., et al. 1999. Tim9, a new component of the TIM22.54 translocase in mitochondria. EMBO J. 18: 313-319.
6. Davis, A.J., et al. 2000. Two intermembrane space TIM complexes interact with different domains of Tim23p during its import into mitochondria. J. Cell Biol. 150: 1271-1282.
7. LocusLink Report (LocusID: 26519). http://www.ncbi.nlm.nih.gov/LocusLink/

CHROMOSOMAL LOCATION

Genetic locus: TIMM10 (human) mapping to 11q12.1.

SOURCE

Tim10 (H-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 52-74 of Tim10 of human origin.

PRODUCT

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

RESEARCH USE

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

APPLICATIONS

Tim10 (H-4) is recommended for detection of Tim10 of 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).

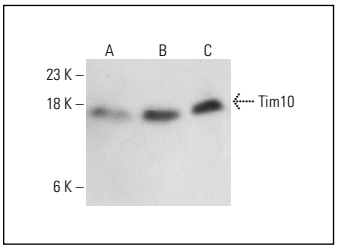
Suitable for use as control antibody for Tim10 siRNA (h): sc-41255, Tim10 shRNA Plasmid (h): sc-41255-SH and Tim10 shRNA (h) Lentiviral Particles: sc-41255-V.

Positive Controls: NCI-H460 whole cell lysate: sc-364235, Hep G2 cell lysate: sc-2227 or A549 cell lysate: sc-2413.

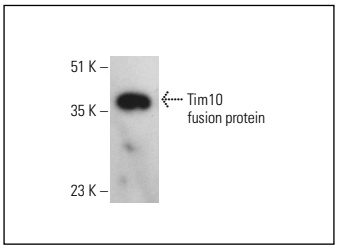
RECOMMENDED SUPPORT REAGENTS

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 L-Agarose: sc-2336 (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



Tim10 (H-4): sc-518253. Western blot analysis of Tim10 expression in Hep G2 (**A**), A549 (**B**) and NCI-H460 (**C**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



Tim10 (H-4): sc-518253. Western blot analysis of human recombinant Tim10 fusion protein. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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