

## Tim8B (N-17): sc-17055

### 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 complex, 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. Tim8A and Tim8B, which map to human chromosomes Xq22.1 and 11q23.1, respectively, are conserved proteins of the mitochondrial intermembrane space which are organized in hetero-oligomeric complex with Tim13. Tim8A is highly expressed in fetal and adult brain. Tim8A is mutated in deafness dystonia syndrome, a novel type of disease that causes severe neurological defects, thought to be caused by a defective mitochondrial protein transport system.

### REFERENCES

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- Rassow, J., Dekker, P.J., van Wilpe, S., Meijer, M. and Soll, J. 1999. The preprotein translocase of the mitochondrial inner membrane: function and evolution. *J. Mol. Biol.* 286: 105-120.
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- Paschen, S.A., Rothbauer, U., Kaldi, K., Bauer, M.F., Neupert, W. and Brunner, M. 2000. The role of the Tim8-13 complex in the import of TIM23 into mitochondria. *EMBO J.* 19: 6392-6400.
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### CHROMOSOMAL LOCATION

Genetic locus: TIMM8B (human) mapping to 11q23.1; Timm8b (mouse) mapping to 9 A5.3.

### SOURCE

Tim8B (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Tim8B of human origin.

### STORAGE

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

### 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-17055 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

Tim8B (N-17) is recommended for detection of Tim8B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

Tim8B (N-17) is also recommended for detection of Tim8B in additional species, including equine, canine, bovine and porcine.

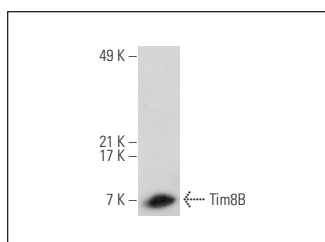
Suitable for use as control antibody for Tim8B siRNA (h): sc-41249, Tim8B siRNA (m): sc-41250, Tim8B shRNA Plasmid (h): sc-41249-SH, Tim8B shRNA Plasmid (m): sc-41250-SH, Tim8B shRNA (h) Lentiviral Particles: sc-41249-V and Tim8B shRNA (m) Lentiviral Particles: sc-41250-V.

Positive Controls: KNRK whole cell lysate: sc-2214.

### 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

### DATA



Tim8B (N-17): sc-17055. Western blot analysis of Tim8B expression in KNRK whole cell lysate.

### RESEARCH USE

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