**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 neurodegenerative diseases, suggesting important roles for Tim proteins in development and health. Tim8A and Tim8B, which map to human chromosomes Xq22.1 and 11q23.1-q23.2, 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**


**CHROMOSOMAL LOCATION**

Genetic locus: TIMM8A (human) mapping to Xq22.1; Timm8a1 (mouse) mapping to X E3.

**SOURCE**

Tim8A (T-40) is a mouse monoclonal antibody raised against recombinant Tim8A of human origin.

**PRODUCT**

Each vial contains 100 µg IgG2a kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

**STORAGE**

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

**APPLICATIONS**

Tim8A (T-40) is recommended for detection of Tim8A 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), immunohistochemistry (including paraffin-embedded sections) (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 Tim8A siRNA (h): sc-41247, Tim8A siRNA (m): sc-41248, Tim8A shRNA Plasmid (h): sc-41247-SH, Tim8A shRNA Plasmid (m): sc-41248-SH, Tim8A shRNA (h) Lentiviral Particles: sc-41247-V and Tim8A shRNA (m) Lentiviral Particles: sc-41248-V.

Molecular Weight of Tim8A: 11 kDa.

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

**DATA**

**Select Product Citations**


**RESEARCH USE**

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