**BACKGROUND**

The mitochondrial ATP synthases transduce the energy contained in the membrane's electrochemical proton gradients into the energy required for synthesis of high-energy phosphate bonds. F₁ is the hydrophilic domain of ATPase that has three identical α subunits, three identical β subunits and three additional subunits. Each ATPase contains three catalytic sites for synthesis, with one site located in each of the three β subunits. ATPAF1 (ATP synthase mitochondrial F₁ complex assembly factor 1), also known as its yeast homolog Atp11p, is a 328 amino acid mitochondrial protein that is required for the assembly of F₁-β and F₁-α subunits into the mitochondrial ATPase. Both ATPAF1 and ATPAF2 are broadly conserved in eukaryotes and are widely expressed, suggesting that they are essential housekeeping proteins. Due to their influence on enzyme assembly, it has been suggested that evaluation of ATPAF1 and ATPAF2 may be of interest in patients with ATP synthase deficiencies in which the underlying biochemical defect is unknown.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: ATPAF1 (human) mapping to 1p33.

**SOURCE**

ATPAF1 (E-12) is a mouse monoclonal antibody raised against amino acids 74-230 mapping within an internal region of ATPAF1 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.

**APPLICATIONS**

ATPAF1 (E-12) is recommended for detection of ATPAF1 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 1:30-1:300).

Suitable for use as control antibody for ATPAF1 siRNA (h): sc-78578, ATPAF1 shRNA Plasmid (h): sc-78578-SH and ATPAF1 shRNA (h) Lentiviral Particles: sc-78578-V.

Molecular Weight (predicted) of ATPAF1: 36 kDa.

Molecular Weight (observed) of ATPAF1: 28-32 kDa.

Positive Controls: SJRH30 cell lysate: sc-2287, Hep G2 cell lysate: sc-2227 or human skeletal muscle extract: sc-363776.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:


**DATA**

**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.