

OSCP (H-140): sc-98707

BACKGROUND

Oligomycin-sensitivity conferring protein (OSCP), also designated ATP50, is the O subunit of ATP synthase which localizes to the mitochondria and catalyzes ATP synthesis. Mitochondrial ATP synthases (ATPases) transduce the energy contained in membrane electrochemical proton gradients into the energy required for synthesis of high-energy phosphate bonds. ATPases contain two linked complexes: F_1 , the hydrophilic catalytic core; and F_0 , the membrane-embedded protein channel. F_1 consists of three α chains and three β chains, which are weakly homologous, as well as one γ chain, one δ chain and one ϵ chain. F_0 consists of three subunits: α , β and γ . The ϵ chain of F_1 contains 50 amino acids and is the smallest of the 5 ATPase F_1 chains.

REFERENCES

- Hundal, T., et al. 1983. Lack of ability of trypsin-treated mitochondrial F_1 -ATPase to bind the oligomycin-sensitivity conferring protein (OSCP). FEBS Lett. 162: 5-10.
- Hundal, T., et al. 1984. The oligomycin sensitivity conferring protein (OSCP) of beef heart mitochondria: studies of its binding to F_1 and its function. J. Bioenerg. Biomembr. 16: 535-550.

CHROMOSOMAL LOCATION

Genetic locus: ATP50 (human) mapping to 21q22.11; Atp5o (mouse) mapping to 16 C4.

SOURCE

OSCP (H-140) is a rabbit polyclonal antibody raised against amino acids 71-210 mapping within an internal region of OSCP of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

OSCP (H-140) is recommended for detection of OSCP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

OSCP (H-140) is also recommended for detection of OSCP in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for OSCP siRNA (h): sc-62452, OSCP siRNA (m): sc-76010, OSCP shRNA Plasmid (h): sc-62452-SH, OSCP shRNA Plasmid (m): sc-76010-SH, OSCP shRNA (h) Lentiviral Particles: sc-62452-V and OSCP shRNA (m) Lentiviral Particles: sc-76010-V.

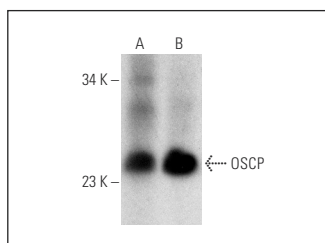
Molecular Weight of OSCP: 23 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, human heart extract: sc-363763 or mouse heart extract: sc-2254.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



OSCP (H-140): sc-98707. Western blot analysis of OSCP expression in mouse heart (A) and human heart (B) tissue extracts.

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 or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **OSCP (A-8): sc-365162**, our highly recommended monoclonal alternative to OSCP (H-140).