

MIPEP (166CT22.3.7): sc-517345

BACKGROUND

MIPEP (mitochondrial intermediate peptidase) is a 713 amino acid protein that performs the final step in processing nuclear-encoded proteins that are targeted to the mitochondrial inner membrane or matrix. MIPEP is primarily involved in the maturation of oxidative phosphorylation-related proteins and is accordingly expressed at highest levels in tissues that have high oxygen consumption, such as skeletal muscle, brain, heart and pancreas. Significantly, human MIPEP is the functional homolog of yeast YMIP, a protein that promotes mitochondrial iron uptake and is regulated by the yeast homolog of frataxin, which is required for mitochondrial iron efflux. Due to the likely regulatory effect that human frataxin has on it, MIPEP may be implicated in the clinical manifestations of Friedreich ataxia, an autosomal recessive neurodegenerative disease caused by deficiency of frataxin.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MIPEP (human) mapping to 13q12.12.

SOURCE

MIPEP (166CT22.3.7) is a mouse monoclonal antibody raised against a recombinant protein corresponding to MIPEP of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

MIPEP (166CT22.3.7) is recommended for detection of MIPEP of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for MIPEP siRNA (h): sc-106225, MIPEP shRNA Plasmid (h): sc-106225-SH and MIPEP shRNA (h) Lentiviral Particles: sc-106225-V.

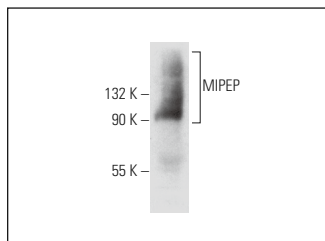
Molecular Weight of MIPEP: 81 kDa.

Positive Controls: COLO 205 whole cell lysate: sc-364177.

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 A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



MIPEP (166CT22.3.7): sc-517345. Western blot analysis of MIPEP expression in COLO 205 whole cell lysate.

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.