

## OPA1 (D-9): sc-393296



The Power to Question

## BACKGROUND

OPA1 (optic atrophy 1 gene protein), belongs to the Dynamin family. The gene encoding OPA1 localizes to 3q29, is targeted to mitochondria and is involved in mitochondrial biogenesis. Defects in OPA1 are a cause of optic atrophy type 1. OPA1 is mostly expressed in retina but can also be expressed in brain, testis, heart and skeletal muscles.

## CHROMOSOMAL LOCATION

Genetic locus: OPA1 (human) mapping to 3q29; Opa1 (mouse) mapping to 16 B2.

## SOURCE

OPA1 (D-9) is a mouse monoclonal antibody raised against amino acids 647-780 mapping within an internal region of OPA1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

OPA1 (D-9) is available conjugated to agarose (sc-393296 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393296 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393296 PE), fluorescein (sc-393296 FITC), Alexa Fluor® 488 (sc-393296 AF488), Alexa Fluor® 546 (sc-393296 AF546), Alexa Fluor® 594 (sc-393296 AF594) or Alexa Fluor® 647 (sc-393296 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393296 AF680) or Alexa Fluor® 790 (sc-393296 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

OPA1 (D-9) is recommended for detection of OPA1 of mouse, rat and 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 1:30-1:3000).

OPA1 (D-9) is also recommended for detection of OPA1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for OPA1 siRNA (h): sc-106808, OPA1 siRNA (m): sc-151306, OPA1 shRNA Plasmid (h): sc-106808-SH, OPA1 shRNA Plasmid (m): sc-151306-SH, OPA1 shRNA (h) Lentiviral Particles: sc-106808-V and OPA1 shRNA (m) Lentiviral Particles: sc-151306-V.

Molecular Weight of OPA1: 120 kDa.

Positive Controls: Ramos cell lysate: sc-2216, NIH/3T3 whole cell lysate: sc-2210 or HeLa whole cell lysate: sc-2200.

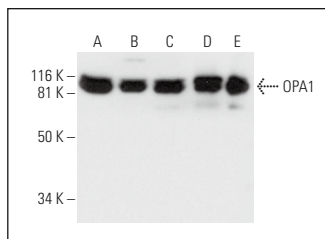
## STORAGE

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

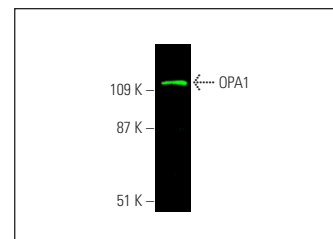
## RESEARCH USE

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

## DATA



OPA1 (D-9): sc-393296. Western blot analysis of OPA1 expression in Ramos (A), NIH/3T3 (B) and HeLa (C) whole cell lysates and rat brain (D) and human hippocampus (E) tissue extracts.



OPA1 (D-9): sc-393296. Near-infrared western blot analysis of OPA1 expression in HeLa whole cell lysate. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.

## SELECT PRODUCT CITATIONS

- Li, J., et al. 2014. Tom70 serves as a molecular switch to determine pathological cardiac hypertrophy. *Cell Res.* 24: 977-993.
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## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.