

PHI-1 (C-11): sc-514811

BACKGROUND

PHI-1, also known as PPP1R14B (protein phosphatase 1, regulatory (inhibitor) subunit 14B), PLCB3N (phospholipase C- β -3 neighbouring gene protein), PNG or SOM172, is a 147 amino acid coiled-coil protein that belongs to the PP1 inhibitor family. Ubiquitously expressed at low levels, PHI-1 localizes to cytoplasm and functions as an inhibitor of PP1. PHI-1 blocks myosin light chain dephosphorylation and interacts with MYPT1, an important regulator of cell migration, adhesion and retraction that may function as a tumor suppressor by regulating Rho-dependent amoeboid cell behavior in metastasis. Phosphorylated primarily on threonine 57 and an unknown serine by PKC, PHI-1 exhibits a 50-fold increase in inhibitory activity during phosphorylation. The gene that encodes PHI-1 maps to human chromosome 11q13.1.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PPP1R14B (human) mapping to 11q13.1; Ppp1r14b (mouse) mapping to 19 A.

SOURCE

PHI-1 (C-11) is a mouse monoclonal antibody raised against amino acids 2-41 mapping near the C-terminus of PHI-1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

PHI-1 (C-11) is recommended for detection of PHI-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for PHI-1 siRNA (h): sc-96843, PHI-1 siRNA (m): sc-152222, PHI-1 shRNA Plasmid (h): sc-96843-SH, PHI-1 shRNA Plasmid (m): sc-152222-SH, PHI-1 shRNA (h) Lentiviral Particles: sc-96843-V and PHI-1 shRNA (m) Lentiviral Particles: sc-152222-V.

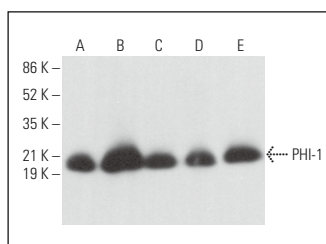
Molecular Weight of PHI-1: 16 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

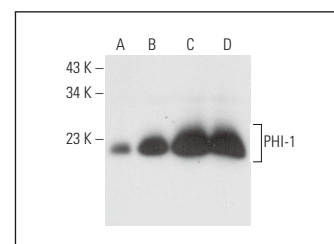
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



PHI-1 (C-11): sc-514811. Western blot analysis of PHI-1 expression in Hep G2 (A), HUV-EC-C (B), ECV304 (C), C2C12 (D) and A-10 (E) whole cell lysates.



PHI-1 (C-11): sc-514811. Western blot analysis of PHI-1 expression in human heart tissue extract (A) and Hep G2 (B), HeLa (C) and Jurkat (D) whole cell lysates.

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.