

prefoldin 3 (B-3): sc-390465

BACKGROUND

Molecular chaperones are proteins that assist in the correct folding of other proteins in the crowded molecular environment that exists in living cells. Within this class of proteins, a key role is played by chaperonins, multisubunit toroidal (i.e. doughnut-shaped) assemblies that undergo major ATP-dependent conformational changes as part of the mechanism of facilitated folding. Prefoldin is a heterohexameric chaperone protein which has the ability to capture unfolded Actin. Six prefoldin polypeptides, prefoldin 1-6, have been identified. Prefoldin 1 is a 122 amino acid protein that binds specifically to cytosolic chaperonin (c-cpn) and transfers target proteins to it. Prefoldin 3 (VBP1 or VHL binding protein-1) forms complexes with VHL and is translocated from perinuclear granules to the nucleus or cytoplasm. Prefoldin 4 is a possible transcription factor. Prefoldin 5 (c-Myc-binding protein Mm-1, Myc modulator 1 or MM-1) is a c-Myc binding protein.

REFERENCES

1. Tsuchiya, H., et al. 1996. Identification of a novel protein (VBP-1) binding to the von Hippel-Lindau (VHL) tumor suppressor gene product. *Cancer Res.* 56: 2881-2885.
2. Brinke, A., et al. 1997. Characterization of the gene (VBP1) and transcript for the von Hippel-Lindau binding protein and isolation of the highly conserved murine homologue. *Genomics* 45: 105-112.

CHROMOSOMAL LOCATION

Genetic locus: VBP1 (human) mapping to Xq28; Vbp1 (mouse) mapping to X A7.3.

SOURCE

prefoldin 3 (B-3) is a mouse monoclonal antibody raised against amino acids 1-92 mapping at the N-terminus of prefoldin 3 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

prefoldin 3 (B-3) is recommended for detection of prefoldin 3 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).

Suitable for use as control antibody for prefoldin 3 siRNA (h): sc-40873, prefoldin 3 siRNA (m): sc-40874, prefoldin 3 shRNA Plasmid (h): sc-40873-SH, prefoldin 3 shRNA Plasmid (m): sc-40874-SH, prefoldin 3 shRNA (h) Lentiviral Particles: sc-40873-V and prefoldin 3 shRNA (m) Lentiviral Particles: sc-40874-V.

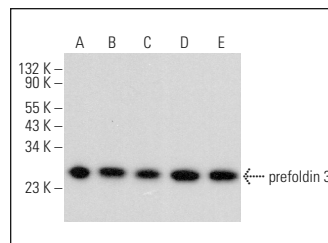
Molecular Weight of prefoldin 3: 23 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, Hep G2 cell lysate: sc-2227 or NIH/3T3 whole cell lysate: sc-2210.

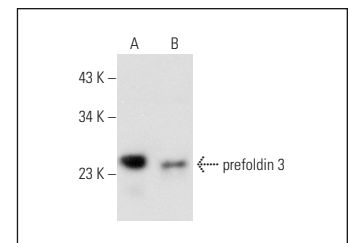
RECOMMENDED SUPPORT REAGENTS

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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



prefoldin 3 (B-3): sc-390465. Western blot analysis of prefoldin 3 expression in U-698-M (A), NIH/3T3 (B), RAW 264.7 (C), K-562 (D) and MDA-MB-231 (E) whole cell lysates.



prefoldin 3 (B-3): sc-390465. Western blot analysis of prefoldin 3 expression in HL-60 (A) and Hep G2 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Zhang, H., et al. 2020. VBP1 modulates Wnt/β-catenin signaling by mediating the stability of the transcription factors TCF/LEFs. *J. Biol. Chem.* 295: 16826-16839.

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.