

# prefoldin 5 (FL-154): sc-33591

## 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. 6 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., Iseda, T. and Hino, O. 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., Green, P.M. and Giannelli, F. 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.
3. Vainberg, I.E., Lewis, S.A., Rommelaere, H., Ampe, C., Vandekerckhove, J., Klein, H.L. and Cowan, N.J. 1998. Prefoldin, a chaperone that delivers unfolded proteins to cytosolic chaperonin. *Cell* 93: 863-873.
4. International Radiation Hybrid Mapping Consortium. <http://www.ncbi.nlm.nih.gov/genemap/>

## CHROMOSOMAL LOCATION

Genetic locus: PFDN5 (human) mapping to 12q13.13; Pfdn5 (mouse) mapping to 15 F3.

## SOURCE

prefoldin 5 (FL-154) is a rabbit polyclonal antibody raised against amino acids 1-154 representing full length prefoldin 5 of human origin.

## PRODUCT

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

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

prefoldin 5 (FL-154) is recommended for detection of prefoldin 5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

prefoldin 5 (FL-154) is also recommended for detection of prefoldin 5 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for prefoldin 5 siRNA (h): sc-40876, prefoldin 5 siRNA (m): sc-40877, prefoldin 5 shRNA Plasmid (h): sc-40876-SH, prefoldin 5 shRNA Plasmid (m): sc-40877-SH, prefoldin 5 shRNA (h) Lentiviral Particles: sc-40876-V and prefoldin 5 shRNA (m) Lentiviral Particles: sc-40877-V.

Molecular Weight (predicted) of prefoldin 5: 17 kDa.

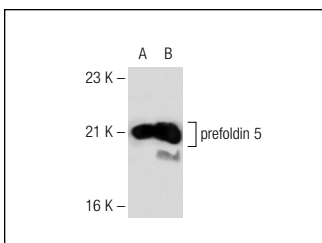
Molecular Weight (observed) of prefoldin 5: 15/21 kDa.

Positive Controls: NIH/3T3 nuclear extract: sc-2138, prefoldin 5 (m): 293T Lysate: sc-122756 or HeLa nuclear extract: sc-2120.

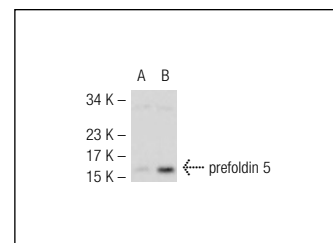
## RECOMMENDED SECONDARY REAGENTS

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



prefoldin 5 (FL-154): sc-33591. Western blot analysis of prefoldin 5 expression in NIH/3T3 (A) and HeLa (B) nuclear extracts.



prefoldin 5 (FL-154): sc-33591. Western blot analysis of prefoldin 5 expression in non-transfected: sc-117752 (A) and mouse prefoldin 5 transfected: sc-122756 (B) 293T whole cell lysates.

## RESEARCH USE

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