

# h-prune (F-5): sc-393318

## BACKGROUND

H-prune, also known as DRES17 (*Drosophila*-related expressed sequence 17) or prune, is a 453 amino acid protein that localizes to the cytoplasm and the nucleus, as well as to the cell junction, and belongs to the prune subfamily of PPase class C proteins. Expressed ubiquitously, h-prune exists as a homo-oligomer that uses manganese as a cofactor and functions as a phosphodiesterase, effectively catalyzing the conversion of a diphosphate to two free phosphates and playing a role in cell proliferation and cell motility. H-prune is overexpressed in aggressive sarcoma subtypes, such as leiomyosarcomas and malignant fibrous histiocytomas (MFH), suggesting a role in tumor development and metastasis. Multiple isoforms of h-prune exist due to alternative splicing events.

## REFERENCES

1. Volorio, S., et al. 1998. Sequencing analysis of forty-eight human image cDNA clones similar to *Drosophila* mutant protein. *DNA Seq.* 9: 307-315.
2. Reymond, A., et al. 1999. Evidence for interaction between human PRUNE and nm23-H1 NDPKase. *Oncogene* 18: 7244-7252.
3. Forus, A., et al. 2001. Amplification and overexpression of PRUNE in human sarcomas and breast carcinomas—a possible mechanism for altering the nm23-H1 activity. *Oncogene* 20: 6881-6890.
4. Zollo, M., et al. 2005. Overexpression of h-prune in breast cancer is correlated with advanced disease status. *Clin. Cancer Res.* 11: 199-205.
5. Kobayashi, T., et al. 2006. Glycogen synthase kinase 3 and h-prune regulate cell migration by modulating focal adhesions. *Mol. Cell. Biol.* 26: 898-911.
6. Middelhaufe, S., et al. 2007. Domain mapping on the human metastasis regulator protein h-prune reveals a C-terminal dimerization domain. *Biochem. J.* 407: 199-205.

## CHROMOSOMAL LOCATION

Genetic locus: PRUNE1 (human) mapping to 1q21.3; Prune1 (mouse) mapping to 3 F2.1.

## SOURCE

h-prune (F-5) is a mouse monoclonal antibody raised against amino acids 197-249 mapping within an internal region of h-prune 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.

h-prune (F-5) is available conjugated to agarose (sc-393318 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393318 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393318 PE), fluorescein (sc-393318 FITC), Alexa Fluor® 488 (sc-393318 AF488), Alexa Fluor® 546 (sc-393318 AF546), Alexa Fluor® 594 (sc-393318 AF594) or Alexa Fluor® 647 (sc-393318 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393318 AF680) or Alexa Fluor® 790 (sc-393318 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

h-prune (F-5) is recommended for detection of h-prune 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 h-prune siRNA (h): sc-75218, h-prune siRNA (m): sc-75219, h-prune shRNA Plasmid (h): sc-75218-SH, h-prune shRNA Plasmid (m): sc-75219-SH, h-prune shRNA (h) Lentiviral Particles: sc-75218-V and h-prune shRNA (m) Lentiviral Particles: sc-75219-V.

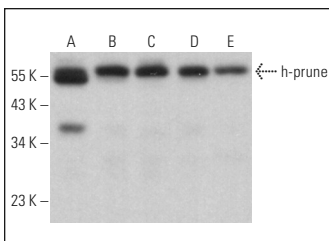
Molecular Weight of h-prune: 50 kDa.

Positive Controls: WiDr cell lysate: sc-24779, A-673 cell lysate: sc-2414 or Jurkat whole cell lysate: sc-2204.

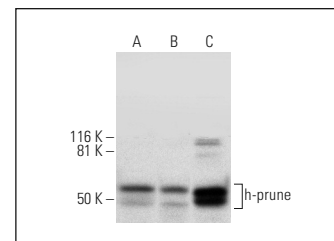
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-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



h-prune (F-5): sc-393318. Western blot analysis of h-prune expression in Jurkat (A), HEL 92.1.7 (B), Hep G2 (C), K-562 (D) and A-431 (E) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



h-prune (F-5): sc-393318. Western blot analysis of h-prune expression in WiDr (A), A-673 (B) and Jurkat (C) 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.

## PROTOCOLS

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