SANTA CRUZ BIOTECHNOLOGY, INC.

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

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 NDPKinase. 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.

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_1 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.

RESEARCH USE

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

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.

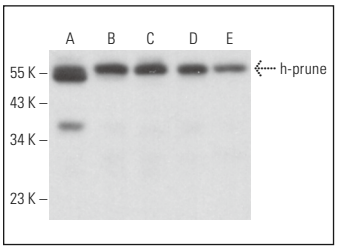
Molecular Weight of h-prune: 50 kDa.

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

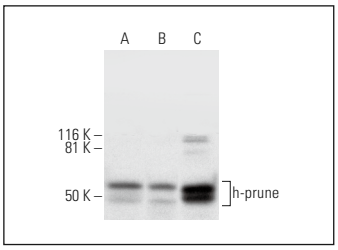
RECOMMENDED SUPPORT REAGENTS

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.

SELECT PRODUCT CITATIONS

1. Scoma, E.R., et al. 2023. Human prune regulates the metabolism of mammalian inorganic polyphosphate and bioenergetics. Int. J. Mol. Sci. 24: 13859.

STORAGE

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