

# pHyde (H-4): sc-376327



The Power to Question

## BACKGROUND

Caspases modulate apoptosis in various ways. Specifically, caspase-3, a death protease, is instrumental in cleaving cellular proteins, dismantling the cell and forming apoptotic bodies. pHyde has a potential role as a tumor suppressor by inducing caspase-3-mediated apoptosis and stimulating p53 expression. A dose-dependent increase in caspase-3 activity is observed in transduced pHyde DU145 cells. Furthermore, caspase-3 may be necessary for pHyde-mediated apoptosis. The pHyde gene may upregulate the apoptosis pathway and thus have a potential application in cancer gene therapy. Recombinant pHyde inhibits the growth of human prostate cancer cell lines DU145 and LNCaP *in vitro*. DU145 tumors may be reduced significantly *in vivo* when nude mice are injected with recombinant pHyde. pHyde also has a demonstrated growth inhibitory effect on human breast cancer cells. This suggests that pHyde may have a role in inhibiting different tumor types.

## CHROMOSOMAL LOCATION

Genetic locus: STEAP3 (human) mapping to 2q14.2; Steap3 (mouse) mapping to 1 E2.3.

## SOURCE

pHyde (H-4) is a mouse monoclonal antibody raised against amino acids 140-203 mapping within an internal region of pHyde 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.

pHyde (H-4) is available conjugated to agarose (sc-376327 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376327 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376327 PE), fluorescein (sc-376327 FITC), Alexa Fluor® 488 (sc-376327 AF488), Alexa Fluor® 546 (sc-376327 AF546), Alexa Fluor® 594 (sc-376327 AF594) or Alexa Fluor® 647 (sc-376327 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376327 AF680) or Alexa Fluor® 790 (sc-376327 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

pHyde (H-4) is recommended for detection of pHyde 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), immunohistochemistry (including paraffin-embedded sections) (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 pHyde siRNA (h): sc-37487, pHyde siRNA (m): sc-37488, pHyde shRNA Plasmid (h): sc-37487-SH, pHyde shRNA Plasmid (m): sc-37488-SH, pHyde shRNA (h) Lentiviral Particles: sc-37487-V and pHyde shRNA (m) Lentiviral Particles: sc-37488-V.

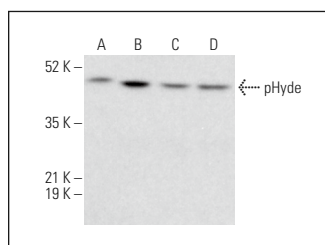
Molecular Weight of pHyde: 55 kDa.

Positive Controls: C6 whole cell lysate: sc-364373, L6 whole cell lysate: sc-364196 or A-10 cell lysate: sc-3806.

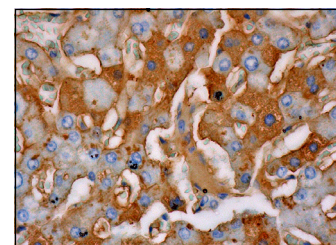
## RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



pHyde (H-4): sc-376327. Western blot analysis of pHyde expression in C6 (A), L6 (B), A-10 (C) and M1 (D) whole cell lysates.



pHyde (H-4): sc-376327. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic and membrane staining of glandular cells.

## SELECT PRODUCT CITATIONS

- Ling, Y., et al. 2022. Myocardium-specific Isca1 knockout causes iron metabolism disorder and myocardial oncosis in rat. *Life Sci.* 297: 120485.
- Zhou, L., et al. 2022. Hypoxia-induced lncRNA STEAP3-AS1 activates Wnt/β-catenin signaling to promote colorectal cancer progression by preventing m<sup>6</sup>A-mediated degradation of STEAP3 mRNA. *Mol. Cancer* 21: 168.
- Dvorianchikova, G., et al. 2022. Multiple types of programmed necrosis such as necroptosis, pyroptosis, oxytosis/ferroptosis, and parthanatos contribute simultaneously to retinal damage after ischemia-reperfusion. *Sci. Rep.* 12: 17152.

## 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.

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