



# pHyde (N-15): sc-103884

## 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.

## REFERENCES

1. Slee, E.A., et al. 1999. Serial killers: ordering caspase activation events in apoptosis. *Cell Death Differ.* 6: 1067-1074.
2. Porter, A.G., et al. 1999. Emerging roles of caspase-3 in apoptosis. *Cell Death Differ.* 6: 99-104.
3. Steiner, M.S., et al. 2000. Growth inhibition of prostate cancer by an adenovirus expressing a novel tumor suppressor gene, pHyde. *Cancer Res.* 60: 4419-4425.
4. Rinaldy, A.R., et al. 2000. Role of pHyde novel gene product as an intrinsic factor for apoptotic pathway in prostate cancer. *Gan To Kagaku Ryoho* 2: 215-222.
5. Zhang, X., et al. 2001. Apoptosis induction in prostate cancer cells by a novel gene product, pHyde, involves caspase-3. *Oncogene* 20: 5982-5990.

## CHROMOSOMAL LOCATION

Genetic locus: STEAP3 (human) mapping to 2q14.2.

## SOURCE

pHyde (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal cytoplasmic domain of pHyde 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.

Blocking peptide available for competition studies, sc-103884 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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.

## APPLICATIONS

pHyde (N-15) is recommended for detection of pHyde of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with STEAP or STEAP2 family members.

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.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## PROTOCOLS

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