

APEH (S-19): sc-102312

BACKGROUND

APEH (acyl-peptide hydrolase), also known as APH, OPH or ACPH, is a 732 amino acid cytoplasmic protein that exists as a homotetramer and functions to catalyze the hydrolysis of N-terminal acetylated amino acids from small acetylated peptides. Once hydrolyzed from the target peptide, the acetyl amino acid is further processed by an aminoacylase to produce acetate and a free amino acid. The gene encoding human APEH maps to a region on chromosome 3 that is deleted in various types of cancers, including renal cell carcinoma and small cell lung carcinoma, suggesting that APEH may be involved in tumor transformation events. Chromosome 3 is made up of about 214 million bases encoding over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci. Key tumor suppressing genes on chromosome 3 include those that encode the apoptosis mediator RASSF1, the cell migration regulator HYAL1 and the angiogenesis suppressor SEMA3B.

REFERENCES

- Naylor, S.L., Marshall, A., Hensel, C., Martinez, P.F., Holley, B. and Sakaguchi, A.Y. 1989. The DNF15S2 locus at 3p21 is transcribed in normal lung and small cell lung cancer. *Genomics* 4: 355-361.
- Erlandsson, R., Bergerheim, U.S., Boldog, F., Marcsek, Z., Kunimi, K., Lin, B.Y., Ingvarsson, S., Castresana, J.S., Lee, W.H. and Lee, E. 1990. A gene near the D3F15S2 site on 3p is expressed in normal human kidney but not or only at a severely reduced level in 11 of 15 primary renal cell carcinomas (RCC). *Oncogene* 5: 1207-1211.
- Scaloni, A., Jones, W.M., Barra, D., Pospischil, M., Sassa, S., Popowicz, A., Manning, L.R., Schneewind, O. and Manning, J.M. 1992. Acylpeptide hydrolase: inhibitors and some active site residues of the human enzyme. *J. Biol. Chem.* 267: 3811-3818.

CHROMOSOMAL LOCATION

Genetic locus: APEH (human) mapping to 3p21.31; Apeh (mouse) mapping to 9 F2.

SOURCE

APEH (S-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of APEH 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-102312 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

APEH (S-19) is recommended for detection of APEH 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).

APEH (S-19) is also recommended for detection of APEH in additional species, including equine, canine and bovine.

Suitable for use as control antibody for APEH siRNA (h): sc-78303, APEH siRNA (m): sc-141149, APEH shRNA Plasmid (h): sc-78303-SH, APEH shRNA Plasmid (m): sc-141149-SH, APEH shRNA (h) Lentiviral Particles: sc-78303-V and APEH shRNA (m) Lentiviral Particles: sc-141149-V.

Molecular Weight (predicted) of APEH: 81 kDa.

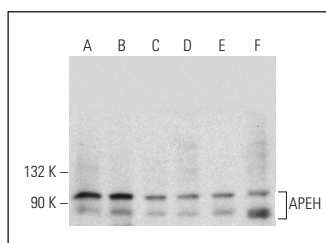
Molecular Weight (observed) of APEH: 84-90 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, K-562 whole cell lysate: sc-2203 or Ramos cell lysate: sc-2216.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



APEH (S-19): sc-102312. Western blot analysis of APEH expression in HeLa (A), Jurkat (B), K-562 (C), Ramos (D) and HEL 92.1.7 (E) whole cell lysates and mouse brain tissue extract (F).

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.