**BACKGROUND**

APEH (acyl-peptide hydrolase), also known as APH, PH or AC PH, 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 acetylamino 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**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

APEH (G-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 23-59 near the N-terminus of APEH of human origin.

**PRODUCT**

Each vial contains 200 µg IgG kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Blocking peptide available for competition studies, sc-376577 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

**APPLICATIONS**

APEH (G-3) is recommended for detection of APEH 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 1:30-1:300).

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.

**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, 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).

**DATA**

APEH (G-3): sc-376577. Western blot analysis of APEH expression in Sol8 (A), c4 (B) and A-10 (C) whole cell lysates.

APEH (G-3): sc-376577. Immunofluorescence staining of methanol-fixed Hela cells showing cytoplasmic localization.

**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 for detailed protocols and support products.