

# ACP6 (S-12): sc-160126

## BACKGROUND

Lysophosphatidic acid phosphatase type 6 (ACP6), also designated acid phosphatase-like protein 1 (ACPL1) or lysophosphatidic acid phosphatase (LPAP), is a 428 amino acid secreted protein that hydrolyzes lysophosphatidic acid to monoacylglycerol. ACP6 is highly expressed in kidney, heart, small intestine, muscle, liver, prostate, testis, ovary and exists as two isoforms as a result of alternative splicing events. The gene encoding ACP6 maps to human chromosome 1, the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome. Notably, the rare aging disease Hutchinson-Gilford progeria is associated with the LMNA gene of human chromosome 1, which encodes lamin A. Stickler syndrome, Parkinsons, Gaucher disease, familial adenomatous polyposis and Usher syndrome are also associated with chromosome 1. Aberrations in chromosome 1 are found in a variety of cancers including head and neck cancer, malignant melanoma and multiple myeloma.

## REFERENCES

- Hiroyama, M. and Takenawa, T. 1999. Isolation of a cDNA encoding human lysophosphatidic acid phosphatase that is involved in the regulation of mitochondrial lipid biosynthesis. *J. Biol. Chem.* 274: 29172-29180.
- Takayama, I., et al. 2002. Novel human and mouse genes encoding an acid phosphatase family member and its downregulation in W/W(V) mouse jejunum. *Gut.* 50: 790-796.
- Weise, A., et al. 2005. New insights into the evolution of chromosome 1. *Cytogenet. Genome Res.* 108: 217-222.
- Marzin, Y., et al. 2006. Chromosome 1 abnormalities in multiple myeloma. *Anticancer Res.* 26: 953-959.
- Calvo, J.H., et al. 2006. Isolation, mapping and identification of SNPs for four genes (ACP6, CGN, ANXA9, SLC27A3) from a bovine QTL region on BTA3. *Cytogenet. Genome Res.* 114: 39-43.
- Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. *Nature* 441: 315-321.
- Ando, T., et al. 2006. Expression of ACP6 is an independent prognostic factor for poor survival in patients with esophageal squamous cell carcinoma. *Oncol. Rep.* 15: 1551-1555.
- Hu, F., et al. 2007. Clonorchis sinensis: expression, characterization, immunolocalization and serological reactivity of one excretory/secretory antigen-LPAP homologue. *Exp. Parasitol.* 117: 157-164.

## CHROMOSOMAL LOCATION

Genetic locus: ACP6 (human) mapping to 1q21.1; Acp6 (mouse) mapping to 3 F2.1.

## 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.

## SOURCE

ACP6 (S-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ACP6 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-160126 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

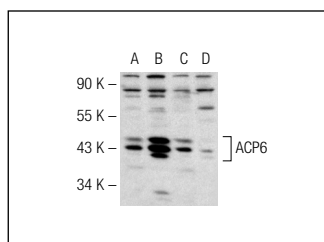
ACP6 (S-12) is recommended for detection of ACP6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other ACP family members.

Suitable for use as control antibody for ACP6 siRNA (h): sc-78582, ACP6 siRNA (m): sc-140822, ACP6 shRNA Plasmid (h): sc-78582-SH, ACP6 shRNA Plasmid (m): sc-140822-SH, ACP6 shRNA (h) Lentiviral Particles: sc-78582-V and ACP6 shRNA (m) Lentiviral Particles: sc-140822-V.

Molecular Weight of ACP6: 49/31 kDa.

Positive Controls: PC-3 cell lysate: sc-2220, COLO 320DM cell lysate: sc-2226 or SK-MEL-28 cell lysate: sc-2236.

## DATA



ACP6 (S-12): sc-160126. Western blot analysis of ACP6 expression in PC-3 (A), COLO 320DM (B), SK-MEL-24 (C) and KNRK (D) whole cell lysates.

## PROTOCOLS

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