SANTA CRUZ BIOTECHNOLOGY, INC.

ACP1β (L-15): sc-19338

BACKGROUND

Regulation of intracellular concentrations of flavoenzymes and flavin coenzymes is essential for proper cell homeostasis. Red cell acid phosphatase, known as ACP1, catalyzes the transfer of phosphate from phosphate ester substrates to suitable acceptor alcohols such as methanol and glycerol. ACP is a genetically polymorphic, cytoplasmic low-molecular-weight flavin mononucleotide phosphatase that regulates the intracellular concentrations of flavin coenzymes. The human ACP1 gene maps to chromosome 2p25 and encodes a pair of isozymes, Bf (α) and Bs (β). The ACP1 α and β isozymes are not glycosylated. Both ACP1-α and ACP1-β isozymes are 157 amino acids in length, however the two forms differ in sequence over an internal 34 residue segment. The two isoforms are believed to differ in substrate specificity.

REFERENCES

1. LocusLink Report (LocusID: 52). http://www.ncbi.nlm.nih.gov/LocusLink/
2. Golden, V.L. and Sensabaugh, G.F. 1986. Phenotypic variation in the phosphotransferase activity of human red cell acid phosphatase (ACP1). Hum. Genet. 72: 340-343.

CHROMOSOMAL LOCATION

Genetic locus: ACP1 (human) mapping to 2p25.3; Acp1 (mouse) mapping to 12 A2.

SOURCE

ACP1β (L-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ACP1β 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-19338 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ACP1β (L-15) is recommended for detection of ACP1β 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).

ACP1β (L-15) is also recommended for detection of ACP1β in additional species, including equine, canine, bovine and porcine.

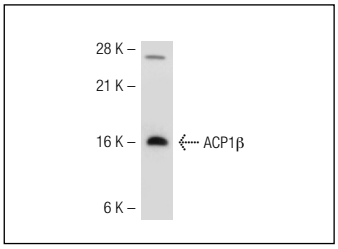
Suitable for use as control antibody for ACP1 siRNA (h): sc-108019, ACP1 siRNA (m): sc-44359, ACP1 shRNA Plasmid (h): sc-108019-SH, ACP1 shRNA Plasmid (m): sc-44359-SH, ACP1 shRNA (h) Lentiviral Particles: sc-108019-V and ACP1 shRNA (m) Lentiviral Particles: sc-44359-V.

Positive Controls: Hep G2 cell lysate: sc-2227.

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



ACP1β (L-15): sc-19338. Western blot analysis of ACP1β expression in Hep G2 whole cell lysate.

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 or our catalog for detailed protocols and support products.