SANTA CRUZ BIOTECHNOLOGY, INC.

ACOT8 (C-3): sc-7343

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ACOT8 (acyl-CoA thioesterase 8), also designated TEII p35 or hTE, is a novel human thioesterase that has been found to interact with the HIV protein Nef using yeast two-hybrid screening. Nef is an auxiliary gene of the human immunodeficiency virus (HIV) which facilitates virus replication and enhances infectivity. The roles of Nef in HIV-infected cells are likely to be mediated by specific interactions with cellular proteins. The interaction between Nef and ACOT8 is correlated with CD4 downregulation, suggesting that ACOT8 may be involved in Nef-mediated CD4 downregulation in HIV-infected cells. ACOT8 is 42% identical to thioesterase II from *Escherichia coli*, and it has no significant homology with the two types of animal thioesterases that have previously been cloned (type I and type II thioesterases).

REFERENCES

1. Miller, M.D., Warmerdam, M.T., Gaston, I., Greene, W.C. and Feinberg, M.B. 1994. The human immunodeficiency virus-1 Nef gene product: a positive factor for viral infection and replication in primary lymphocytes and macrophages. J. Exp. Med. 179: 101-113.
2. Spina, C.A., Kwoh, T.J., Chowers, M.Y., Guatelli, J.C. and Richmann, D.D. 1994. The importance of Nef in the induction of human immunodeficiency virus type 1 replication from primary quiescent CD4 lymphocytes. J. Exp. Med. 179: 115-123.
3. Smith, S. 1994. The animal fatty acid synthase: one gene, one polypeptide, seven enzymes. FASEB J. 8: 1248-1259.
4. Schwartz, O., Marechal, V., Danos, O. and Heard, J.M. 1995. Human immunodeficiency virus type 1 Nef increases the efficiency of reverse transcription in the infected cell. J. Virol. 69: 4053-4059.
5. Aiken, C. and Trono, D. 1995. Nef stimulates human immunodeficiency virus type 1 proviral DNA synthesis. J. Virol. 69: 5048-5056.

CHROMOSOMAL LOCATION

Genetic locus: ACOT8 (human) mapping to 20q13.12; Acot8 (mouse) mapping to 2 H3.

SOURCE

ACOT8 (C-3) is a mouse monoclonal antibody raised against amino acids 1-320 representing full length ACOT8 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ACOT8 (C-3) is available conjugated to agarose (sc-7343 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-7343 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-7343 PE), fluorescein (sc-7343 FITC), Alexa Fluor® 488 (sc-7343 AF488), Alexa Fluor® 546 (sc-7343 AF546), Alexa Fluor® 594 (sc-7343 AF594) or Alexa Fluor® 647 (sc-7343 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-7343 AF680) or Alexa Fluor® 790 (sc-7343 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ACOT8 (C-3) is recommended for detection of ACOT8 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).

Suitable for use as control antibody for ACOT8 siRNA (h): sc-41058, ACOT8 siRNA (m): sc-41059, ACOT8 shRNA Plasmid (h): sc-41058-SH, ACOT8 shRNA Plasmid (m): sc-41059-SH, ACOT8 shRNA (h) Lentiviral Particles: sc-41058-V and ACOT8 shRNA (m) Lentiviral Particles: sc-41059-V.

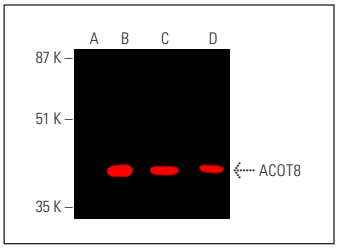
Molecular Weight of ACOT8: 36 kDa.

Positive Controls: ACOT8 (m): 293T Lysate: sc-126376, MCF7 whole cell lysate: sc-2206 or SP2/0 whole cell lysate: sc-364795.

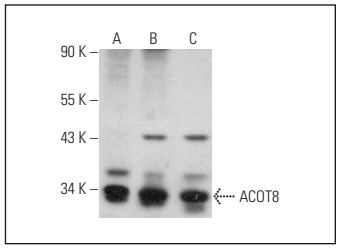
RECOMMENDED SUPPORT REAGENTS

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, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ACOT8 (C-3): sc-7343. Near-infrared western blot analysis of ACOT8 expression in non-transfected 293T: sc-117752 (**A**), mouse ACOT8 transfected 293T: sc-126376 (**B**), SK-BR-3 (**C**) and Hep G2 (**D**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 790: sc-516181.



ACOT8 (C-3): sc-7343. Western blot analysis of ACOT8 expression in MCF7 (**A**), SP2/0 (**B**) and KNRK (**C**) whole cell lysates.

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.