SANTA CRUZ BIOTECHNOLOGY, INC.

Lipin-2 (G-7): sc-514353

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Lipin family of nuclear proteins contains three members: Lipin-1, Lipin-2 and Lipin-3, all of which contain a nuclear signal sequence, a highly conserved amino-terminal (NLIP) domain and a carboxy-terminal (CLIP) domain. Lipin-2 is ubiquitously expressed in various tissues including brain, kidney, lung, heart and skeletal muscles, and it is abundantly produced in the cornea, lens, retina, optic nerve and sclera. The gene encoding for Lipin-2 contains 11 single nucleotide polymorphisms (SNPs). Mutations in the Lipin-2 gene commonly result in Majeed syndrome, an autosomal recessive, autoinflammatory disorder characterized by chronic multifocal osteomyelitis and and congenital dyserythropoietic anemia. The symptoms of this syndrome include inflammation of the bone and skin, and recurrent fevers.

REFERENCES

1. Tomita, M., et al. 2002. Paraquat-induced gene expression in rat lung tissues using a differential display reverse transcription-polymerase chain reaction. Arch. Toxicol. 76: 530-537.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605519. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Scavello, G.S., et al. 2005. Genomic structure and organization of the high grade myopia-2 locus (MYP2) critical region: mutation screening of nine positional candidate genes. Mol. Vis. 11: 97-110.
4. Ferguson, P.J., et al. 2005. Homozygous mutations in LPIN2 are responsible for the syndrome of chronic recurrent multifocal osteomyelitis and congenital dyserythropoietic anaemia (Majeed syndrome). J. Med. Genet. 42: 551-557.
5. Phan, J., et al. 2005. Biphasic expression of Lipin suggests dual roles in adipocyte development. Drug News Perspect. 18: 5-11.
6. Reitman, M.L. 2005. The fat and thin of Lipin. Cell Metab. 1: 5-6.

CHROMOSOMAL LOCATION

Genetic locus: LPIN2 (human) mapping to 18p11.31.

SOURCE

Lipin-2 (G-7) is a mouse monoclonal antibody raised against amino acids 246-405 mapping within an internal region of Lipin-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Lipin-2 (G-7) is available conjugated to agarose (sc-514353 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514353 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514353 PE), fluorescein (sc-514353 FITC), Alexa Fluor® 488 (sc-514353 AF488), Alexa Fluor® 546 (sc-514353 AF546), Alexa Fluor® 594 (sc-514353 AF594) or Alexa Fluor® 647 (sc-514353 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514353 AF680) or Alexa Fluor® 790 (sc-514353 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Lipin-2 (G-7) is recommended for detection of Lipin-2 of 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 1:30-1:3000).

Suitable for use as control antibody for Lipin-2 siRNA (h): sc-60942, Lipin-2 shRNA Plasmid (h): sc-60942-SH and Lipin-2 shRNA (h) Lentiviral Particles: sc-60942-V.

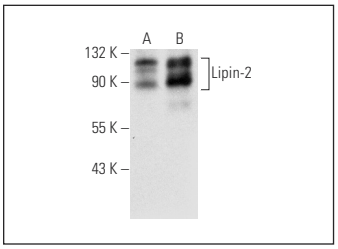
Molecular Weight of Lipin-2: 99 kDa.

Positive Controls: Y79 cell lysate: sc-2240 or human liver extract: sc-363766.

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



Lipin-2 (G-7): sc-514353. Western blot analysis of Lipin-2 expression in Y79 whole cell lysate (**A**) and human liver tissue extract (**B**).

SELECT PRODUCT CITATIONS

1. Castro, V., et al. 2019. Differential roles of Lipin-1 and Lipin-2 in the Hepatitis C virus replication cycle. Cells 8 pii: E1456

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.