

LUCA15 (G-9): sc-515420

BACKGROUND

DEF-3 and LUCA15 belong to an evolutionarily conserved family of RNA binding proteins and share similar expression patterns. Both DEF-3 and LUCA15 are highly expressed in adult heart and thymus as well as fetal kidney. Conversely, fetal thymus and adult kidney express very little DEF-3 and LUCA15. In the haemopoietic system of mice, the expression of DEF-3 is downregulated upon differentiation of progenitor cells into granulocytes but persists during macrophage development. Both DEF-3 and LUCA15 contain two zinc finger motifs, a bipartite nuclear signal and two RNA binding motifs. DEF-3 and LUCA15 are capable of specifically binding poly(G) RNA. The genes encoding human DEF-3 and LUCA15 map to 3p21.31, a region homozygously deleted in the small cell lung cancer cell line GLC20. The onset of lung cancer arises from mutations in dominant and recessive oncogenes, and chromosome 3p contains many of these recessive oncogenes.

REFERENCES

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2. Gure, A.O., Altorki, N.K., Stockert, E., Scanlan, M.J., Old, L.J. and Chen, Y.T. 1998. Human lung cancer antigens recognized by autologous antibodies: definition of a novel cDNA derived from the tumor suppressor gene locus on chromosome 3p21.3. *Cancer Res.* 58: 1034-1041.
3. Drabkin, H.A., West, J.D., Hotfilder, M., Heng, Y.M., Erickson, P., Calvo, R., Dalmau, J., Gemmill, R.M. and Sablitzky, F. 1999. DEF-3(g16/NY-LU-12), an RNA binding protein from the 3p21.3 homozygous deletion region in SCLC. *Oncogene* 18: 2589-2597.

CHROMOSOMAL LOCATION

Genetic locus: RBM5 (human) mapping to 3p21.31; Rbm5 (mouse) mapping to 9 F1.

SOURCE

LUCA15 (G-9) is a mouse monoclonal antibody raised against amino acids 1-81 mapping at the N-terminus of LUCA15 of human origin.

PRODUCT

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

LUCA15 (G-9) is available conjugated to agarose (sc-515420 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515420 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515420 PE), fluorescein (sc-515420 FITC), Alexa Fluor® 488 (sc-515420 AF488), Alexa Fluor® 546 (sc-515420 AF546), Alexa Fluor® 594 (sc-515420 AF594) or Alexa Fluor® 647 (sc-515420 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515420 AF680) or Alexa Fluor® 790 (sc-515420 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

LUCA15 (G-9) is recommended for detection of LUCA15 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 1:30-1:3000).

Suitable for use as control antibody for LUCA15 siRNA (h): sc-106741, LUCA15 siRNA (m): sc-149141, LUCA15 shRNA Plasmid (h): sc-106741-SH, LUCA15 shRNA Plasmid (m): sc-149141-SH, LUCA15 shRNA (h) Lentiviral Particles: sc-106741-V and LUCA15 shRNA (m) Lentiviral Particles: sc-149141-V.

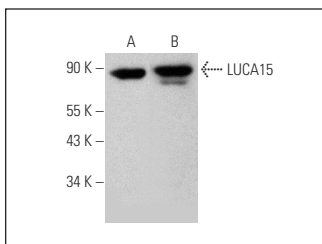
Molecular Weight of LUCA15: 92 kDa.

Positive Controls: HUV-EC-C whole cell lysate: sc-364180 or Caki-1 cell lysate: sc-2224.

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



LUCA15 (G-9): sc-515420. Western blot analysis of LUCA15 expression in HUV-EC-C (A) and Caki-1 (B) 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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.