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


CHROMOSOMAL LOCATION

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

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 IgG2b 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, HICP 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, HICP 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).


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-IgGk BP-HRP: sc-516102 or m-IgGk 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-IgGk BP-FITC: sc-516140 or m-IgGk BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-29491 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 website at www.scbt.com for detailed protocols and support products.