SANTA CRUZ BIOTECHNOLOGY, INC.

LRG1 (H-8): sc-514316

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

LRG1 (leucine-rich α_2-glycoprotein), also known as LRG, is a 347 amino acid secreted protein that contains 8 LRR (leucine-rich) repeats and one LRRCT domain. The leucine-rich repeat (LRR) family of proteins, including LRG1, have been shown to be involved in protein-protein interaction, signal transduction, cell adhesion and development. Found mainly in plasma, LRG1 is expressed during granulocyte differentiation. The gene that encodes LRG1 consists of nearly 3,000 bases and maps to human chromosome 19p13.3. Chromosome 19 consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG families and Fc receptors (FcRs).

REFERENCES

1. Haupt, H. and Baudner, S. 1977. Isolation and characterization of an unknown, leucine-rich 3.1-S-α_2-glycoprotein from human serum (author's transl)]. Hoppe-Seyler's Z. Physiol. Chem. 358: 639-646.
2. Takahashi, N., et al. 1985. Periodicity of leucine and tandem repetition of a 24-amino acid segment in the primary structure of leucine-rich α_2-glycoprotein of human serum. Proc. Natl. Acad. Sci. USA 82: 1906-1910.
3. O'Donnell, L.C., et al. 2002. Molecular characterization and expression analysis of leucine-rich α_2-glycoprotein, a novel marker of granulocytic differentiation. J. Leukoc. Biol. 72: 478-485.
4. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611289. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Shirai, R., et al. 2009. Up-regulation of the expression of leucine-rich α_2-glycoprotein in hepatocytes by the mediators of acute-phase response. Biochem. Biophys. Res. Commun. 382: 776-779.
6. Codina, R., et al. 2010. Cytochrome c-induced lymphocyte death from the outside in: inhibition by serum leucine-rich α_2-glycoprotein-1. Apoptosis 15: 139-152.

CHROMOSOMAL LOCATION

Genetic locus: Lrg1 (mouse) mapping to 17 D.

SOURCE

LRG1 (H-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 191-209 within an internal region of LRG1 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_3 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-514316 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

LRG1 (H-8) is recommended for detection of LRG1 of mouse and rat 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 LRG1 siRNA (m): sc-149038, LRG1 shRNA Plasmid (m): sc-149038-SH and LRG1 shRNA (m) Lentiviral Particles: sc-149038-V.

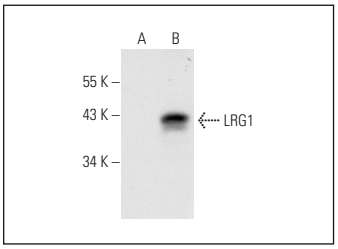
Molecular Weight of LRG1: 38 kDa.

Positive Controls: LRG1 (m2): 293T Lysate: sc-121396, 3T3-L1 cell lysate: sc-2243 or NRK whole cell lysate: sc-364197.

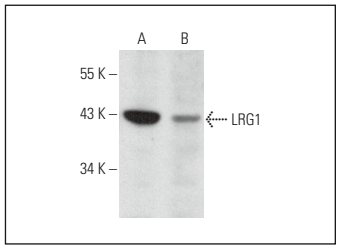
RECOMMENDED SUPPORT REAGENTS

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



LRG1 (H-8): sc-514316. Western blot analysis of LRG1 expression in non-transfected: sc-117752 (**A**) and mouse LRG1 transfected: sc-121396 (**B**) 293T whole cell lysates.



LRG1 (H-8): sc-514316. Western blot analysis of LRG1 expression in 3T3-L1 (**A**) and NRK (**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.