

# LACC1 (E-7): sc-374553

## BACKGROUND

LACC1 is a 430 amino acid protein that is encoded by a gene which maps to chromosome 13. Comprising nearly 4% of human DNA, chromosome 13 contains around 114 million base pairs and 400 genes. Key tumor suppressor genes on chromosome 13 include the breast cancer susceptibility gene, BRCA2, and the RB1 (retinoblastoma) gene. RB1 encodes a crucial tumor suppressor protein which, when defective, leads to malignant growth in the retina and has been implicated in a variety of other cancers. The gene SLITRK1, which is associated with Tourette syndrome, is on chromosome 13. As with most chromosomes, polysomy of part or all of chromosome 13 is deleterious to development and decreases the odds of survival. Trisomy 13, also known as Patau syndrome, is quite deadly and the few who survive past one year suffer from permanent neurologic defects, difficulty eating and vulnerability to serious respiratory infections. The LACC1 gene product has been provisionally designated LACC1 pending further characterization.

## CHROMOSOMAL LOCATION

Genetic locus: LACC1 (human) mapping to 13q14.11.

## SOURCE

LACC1 (E-7) is a mouse monoclonal antibody raised against amino acids 185-430 mapping at the C-terminus of LACC1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LACC1 (E-7) is available conjugated to agarose (sc-374553 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374553 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374553 PE), fluorescein (sc-374553 FITC), Alexa Fluor® 488 (sc-374553 AF488), Alexa Fluor® 546 (sc-374553 AF546), Alexa Fluor® 594 (sc-374553 AF594) or Alexa Fluor® 647 (sc-374553 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374553 AF680) or Alexa Fluor® 790 (sc-374553 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

LACC1 (E-7) is recommended for detection of LACC1 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), immunohistochemistry (including paraffin-embedded sections) (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 LACC1 siRNA (h): sc-105147, LACC1 shRNA Plasmid (h): sc-105147-SH and LACC1 shRNA (h) Lentiviral Particles: sc-105147-V.

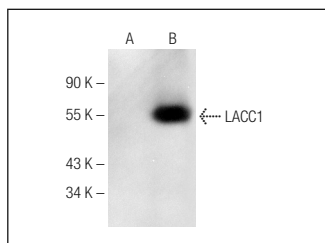
Molecular Weight of LACC1: 48 kDa.

Positive Controls: LACC1 (h): 293T Lysate: sc-115440.

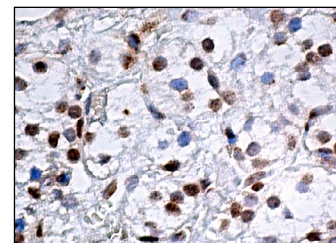
## RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



LACC1 (E-7): sc-374553. Western blot analysis of LACC1 expression in non-transfected: sc-117752 (A) and human LACC1 transfected: sc-115440 (B) 293T whole cell lysates.



LACC1 (E-7): sc-374553. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing nuclear staining of glandular cells.

## SELECT PRODUCT CITATIONS

1. Cader, M.Z., et al. 2016. C13orf31 (FAMIN) is a central regulator of immunometabolic function. *Nat. Immunol.* 17: 1046-1056.
2. Assadi, G., et al. 2016. Functional analyses of the Crohn's disease risk gene LACC1. *PLoS ONE* 11: e0168276.
3. Skon-Hegg, C., et al. 2019. LACC1 regulates TNF and IL-17 in mouse models of arthritis and inflammation. *J. Immunol.* 202: 183-193.
4. Huang, C., et al. 2019. LACC1 required for NOD2-induced, ER stress-mediated innate immune outcomes in human macrophages and LACC1 risk variants modulate these outcomes. *Cell Rep.* 29: 4525-4539.e4.

## 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](http://www.scbt.com) for detailed protocols and support products.