SANTA CRUZ BIOTECHNOLOGY, INC.

RhoGEF p115 (h4): 293T Lysate: sc-175431

BACKGROUND

The Ras superfamily of GTPases can be subdivided into the Ras, Rho/Rac, Sar, Rab, ARF and Ran subfamilies, and controls multiple aspects of cell function, including cytoskeletal rearrangement, nuclear signaling and cell growth. The Ras superfamily of GTPases function as regulated switches that toggle between a biologically active GTP-bound and an inactive GDP-bound form. This activation is catalyzed by guanine nucleotide exchange factors (GEFs). The Dbl-related proteins are a large family of structurally related molecules that have a common ability to catalyze GEF activity for specific members of the Ras family. Dbl-related proteins include FGD1, Lsc, RhoGEF p115, Lfc, Lbc and Brx. Lsc, Lbc and Lfc share sequence homology and show exchange activity toward Rho family GTPases. RhoGEF p115 catalyzes GEF activity for Rho but not Rac, Cdc42 or Ras GTPases.

REFERENCES

1. Bourne, H.R., Sanders, D.A. and McCormick, F. 1990. The GTPase superfamily: a conserved switch for diverse cell functions. Nature 348: 125-132.
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3. Cerione, R.A. and Zheng, Y. 1996. The Dbl family of oncogenes. Curr. Opin. Cell. Biol. 8: 216-222.
4. Whitehead, I.P., Campbell, S., Rossman, K.L. and Der, C.J. 1996. Expression cloning of lsc, a novel oncogene with structural similarities to the Dbl family of guanine nucleotide exchange factors. J. Biol. Chem. 271: 18643-18650.
5. Hart, M.J., Sharma, S., elMasry, N., Qiu, R.G., McCabe, P., Polakis, P. and Bollag, G. 1996. Identification of a novel guanine nucleotide exchange factor for the Rho GTPase. J. Biol. Chem. 271: 25452-25458.
6. Whitehead, I.P., Campbell, S., Rossman, K.L. and Der, C.J. 1997. Dbl family proteins. Biochim. Biophys. Acta 1332: F1-F23.
7. Zohn, I.M., Campbell, S.L., Khosravi-Far, R., Rossman, K.L. and Der, C.J. 1998. Rho family proteins and Ras transformation: the RHOad less traveled gets congested. Oncogene 17: 1415-1438.

CHROMOSOMAL LOCATION

Genetic locus: ARHGEF1 (human) mapping to 19q13.13.

PRODUCT

RhoGEF p115 (h4): 293T Lysate represents a lysate of human RhoGEF p115 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

RhoGEF p115 (h4): 293T Lysate is suitable as a Western Blotting positive control for human reactive RhoGEF p115 antibodies. Recommended use: 10-20 µl per lane.

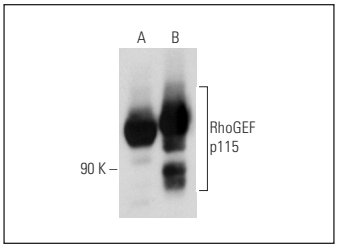
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RhoGEF p115 (C-9): sc-74565 is recommended as a positive control antibody for Western Blot analysis of enhanced human RhoGEF p115 expression in RhoGEF p115 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

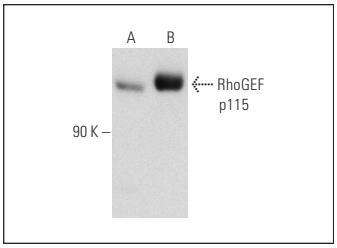
RECOMMENDED SUPPORT REAGENTS

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.

DATA



RhoGEF p115 (C-9): sc-74565. Western blot analysis of RhoGEF p115 expression in non-transfected: sc-117752 (**A**) and human RhoGEF p115 transfected: sc-175431 (**B**) 293T whole cell lysates.



RhoGEF p115 (G-12): sc-74564. Western blot analysis of RhoGEF p115 expression in non-transfected: sc-117752 (**A**) and human RhoGEF p115 transfected: sc-175431 (**B**) 293T whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.