

Makorin-2 (m): 293T Lysate: sc-121492

BACKGROUND

The makorins are a family of putative ribonucleoproteins containing two to four C3H zinc fingers that may confer RNA-binding. In addition, they contain a C3HC4 RING zinc finger that allows them to function as E3 ubiquitin ligases. Makorin-2, also known as RNF62, HSPC070 or MKRN2, is a widely expressed, evolutionarily conserved protein with four C3H-type zinc fingers (three at the N-terminus and one at the C-terminus), one RING-type zinc finger and a cysteine and histidine motif similar to that found in Makorin-1. In *Xenopus*, Makorin-2 functions, via PI 3-kinase/Akt signaling, as a negative regulator of neurogenesis. In humans, Makorin-2 is overexpressed in various cancer cell lines, suggesting a possible role of Makorin-2 in tumor progression. In addition, Makorin-2 is co-expressed with Raf-1 in the same tissues and cell lines.

REFERENCES

- Zhang, Q.H., Ye, M., Wu, X.Y., Ren, S.X., Zhao, M., Zhao, C.J., Fu, G., Shen, Y., Fan, H.Y., Lu, G., Zhong, M., Xu, X.R., Han, Z.G., Zhang, J.W., Tao, J., Huang, Q.H., Zhou, J., Hu, G.X., Gu, J., Chen, S.J. and Chen, Z. 2000. Cloning and functional analysis of cDNAs with open reading frames for 300 previously undefined genes expressed in CD34⁺ hematopoietic stem/progenitor cells. *Genome Res.* 10: 1546-1560.
- Gray, T.A., Azama, K., Whitmore, K., Min, A., Abe, S. and Nicholls, R.D. 2001. Phylogenetic conservation of the Makorin-2 gene, encoding a multiple zinc-finger protein, antisense to the Raf-1 proto-oncogene. *Genomics* 77: 119-126.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608426. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Jarzab, B., Wiench, M., Fujarewicz, K., Simek, K., Jarzab, M., Oczko-Wojciechowska, M., Wloch, J., Czarniecka, A., Chmielik, E., Lange, D., Pawlaczek, A., Szpak, S., Gubala, E. and Swierniak, A. 2005. Gene expression profile of papillary thyroid cancer: sources of variability and diagnostic implications. *Cancer Res.* 65: 1587-1597.
- Yang, P.H., K C Cheung, W., Peng, Y., He, M.L., Wu, G.Q., Xie, D., Jiang, B.H., Huang, Q.H., Chen, Z., C M Lin, M. and Kung, H.F. 2008. Makorin-2 is a neurogenesis inhibitor downstream of PI 3-k/Akt signal. *J. Biol. Chem.* 283: 8486-8495.

CHROMOSOMAL LOCATION

Genetic locus: Mkrn2 (mouse) mapping to 6 E3.

PRODUCT

Makorin-2 (m): 293T Lysate represents a lysate of mouse Makorin-2 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.

APPLICATIONS

Makorin-2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Makorin-2 antibodies. Recommended use: 10-20 µl per lane.

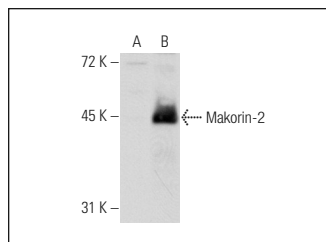
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Makorin-2 (FG-9): sc-101118 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Makorin-2 expression in Makorin-2 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



Makorin-2 (FG-9): sc-101118. Western blot analysis of Makorin-2 expression in non-transfected: sc-117752 (A) and mouse Makorin-2 transfected: sc-121492 (B) 293T whole cell lysates.

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.