

Makorin-3 (G-16): sc-68209

BACKGROUND

The Makorins are a family of proteins containing two to four C₂H zinc fingers that may confer RNA-binding. In addition, they contain C₃HC₄ RING zinc finger that allows them to function as E3 ubiquitin ligases. Makorin-3, also known as MKRN3, D15S9, RNF63, ZFP127 or ZNF127, is a 507 amino acid protein that is ubiquitously expressed and contains one RING-type zinc finger and 3 C₂H₁-type zinc finger through which it may convey E3 ubiquitin ligase activity. The gene encoding Makorin-3 maps to human chromosome 15, which houses over 700 genes and comprises nearly 3% of the human genome. Angelman syndrome, Prader-Willi syndrome, Tay-Sachs disease and Marfan syndrome are all associated with defects in chromosome 15-localized genes.

REFERENCES

- Nicholls, R.D., Saitoh, S. and Horsthemke, B. 1998. Imprinting in Prader-Willi and Angelman syndromes. *Trends Genet.* 14: 194-200.
- Jong, M.T., Gray, T.A., Ji, Y., Glenn, C.C., Saitoh, S., Driscoll, D.J. and Nicholls, R.D. 1999. A novel imprinted gene, encoding a RING zinc-finger protein, and overlapping antisense transcript in the Prader-Willi syndrome critical region. *Hum. Mol. Genet.* 8: 783-793.
- Jong, M.T., Carey, A.H., Caldwell, K.A., Lau, M.H., Handel, M.A., Driscoll, D.J., Stewart, C.L., Rinchik, E.M. and Nicholls, R.D. 1999. Imprinting of a RING zinc-finger encoding gene in the mouse chromosome region homologous to the Prader-Willi syndrome genetic region. *Hum. Mol. Genet.* 8: 795-803.
- Online Mendelian Inheritance in Man, OMIM[™]. 1999. Johns Hopkins University, Baltimore, MD. MIM Number: 603856. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Diene, G., Postel-Vinay, A., Pinto, G., Polak, M. and Tauber, M. 2007. The Prader-Willi syndrome. *Ann. Endocrinol.* 68: 129-137.
- Lalande, M. and Calciano, M.A. 2007. Molecular epigenetics of Angelman syndrome. *Cell. Mol. Life Sci.* 64: 947-960.
- Makoff, A.J. and Flomen, R.H. 2007. Detailed analysis of 15q11-q14 sequence corrects errors and gaps in the public access sequence to fully reveal large segmental duplications at breakpoints for Prader-Willi, Angelman, and inv dup(15) syndromes. *Genome Biol.* 8: R114.

CHROMOSOMAL LOCATION

Genetic locus: Mkn3 (mouse) mapping to 7 C.

SOURCE

Makorin-3 (G-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Makorin-3 of mouse origin.

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.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-68209 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-68209 X, 200 µg/0.1 ml.

APPLICATIONS

Makorin-3 (G-16) is recommended for detection of Makorin-3 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 Makorin-3 siRNA (m): sc-62589, Makorin-3 shRNA Plasmid (m): sc-62589-SH and Makorin-3 shRNA (m) Lentiviral Particles: sc-62589-V.

Makorin-3 (G-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of Makorin-3: 56 kDa.

Molecular Weight (observed) of Makorin-3: 72 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

PROTOCOLS

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