

Makorin-1 (C-20): sc-67672

BACKGROUND

The Makorins are a family of proteins 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-1, also designated RING finger protein 61, is a ubiquitously expressed member of the Makorin family that mediates the ubiquitination of human TERT. The overexpression of Makorin-1 produces a variety of effects. In telomerase-positive cells, Makorin-1 overexpression promotes TERT degradation and reduces the activity of telomerase, leading to a reduction in telomere length. Overexpression of Makorin-1 also inhibits the transcriptional activities of c-Jun, the nuclear receptors, the androgen receptor and the retinoic acid receptors. The inhibitory activity of Makorin-1 requires both the amino- and carboxy-termini but not functioning ubiquitin ligase activity. The less common function of Makorin-1 as an activator also requires both the amino- and carboxy-termini.

REFERENCES

- Gray, T.A., et al. 2001. Phylogenetic conservation of the Makorin-2 gene, encoding a multiple zinc-finger protein, antisense to the RAF1 proto-oncogene. *Genomics* 77: 119-126.
- Kim, J.H., et al. 2005. Ubiquitin ligase Makorin-1 modulates telomere length homeostasis through a proteolysis of hTERT. *Genes Dev.* 19: 776-781.
- Gray, T.A., et al. 2006. The putatively functional Makorin-1-p1 pseudogene is neither expressed nor imprinted, nor does it regulate its source gene in *trans*. *Proc. Natl. Acad. Sci. USA* 103: 12039-12044.
- Omwancha, J., et al. 2006. Makorin RING finger protein 1 (Makorin-1) has negative and positive effects on RNA polymerase II-dependent transcription. *Endocrine* 29: 363-373.

CHROMOSOMAL LOCATION

Genetic locus: MKRN1 (human) mapping to 7q34; Mkrn1 (mouse) mapping to 6 B1.

SOURCE

Makorin-1 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Makorin-1 of human origin.

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-67672 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-67672 X, 200 µg/0.1 ml.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Makorin-1 (C-20) is recommended for detection of makorin-1 of mouse and human origin by Western Blotting (starting dilution 1:200, 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).

Makorin-1 (C-20) is also recommended for detection of makorin-1 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for Makorin-1 siRNA (h): sc-62584, Makorin-1 siRNA (m): sc-62585, Makorin-1 shRNA Plasmid (h): sc-62584-SH, Makorin-1 shRNA Plasmid (m): sc-62585-SH, Makorin-1 shRNA (h) Lentiviral Particles: sc-62584-V and Makorin-1 shRNA (m) Lentiviral Particles: sc-62585-V.

Makorin-1 (C-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

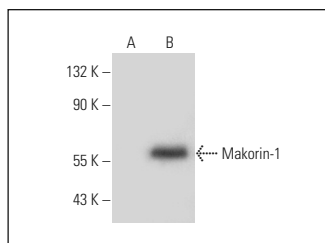
Molecular Weight of Makorin-1: 53 kDa.

Positive Controls: Makorin-1 (h3): 293T Lysate: sc-117304.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Makorin-1 (C-20): sc-67672. Western blot analysis of Makorin-1 expression in non-transfected: sc-117752 (A) and human Makorin-1 transfected: sc-117304 (B) 293T whole cell lysates.

RESEARCH USE

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