

Makorin-1 (C-8): sc-515815

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

1. 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 RAF1 proto-oncogene. *Genomics* 77: 119-126.
2. Kim, J.H., Park, S.M., Kang, M.R., Oh, S.Y., Lee, T.H., Muller, M.T. and Chung, I.K. 2005. Ubiquitin ligase Makorin-1 modulates telomere length homeostasis through a proteolysis of hTERT. *Genes Dev.* 19: 776-781.

CHROMOSOMAL LOCATION

Genetic locus: MKRN1 (human) mapping to 7q34.

SOURCE

Makorin-1 (C-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 460-482 at the C-terminus of Makorin-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-515815 X, 200 µg/0.1 ml.

Makorin-1 (C-8) is available conjugated to agarose (sc-515815 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515815 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515815 PE), fluorescein (sc-515815 FITC), Alexa Fluor® 488 (sc-515815 AF488), Alexa Fluor® 546 (sc-515815 AF546), Alexa Fluor® 594 (sc-515815 AF594) or Alexa Fluor® 647 (sc-515815 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515815 AF680) or Alexa Fluor® 790 (sc-515815 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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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-8) is recommended for detection of Makorin-1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

Makorin-1 (C-8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

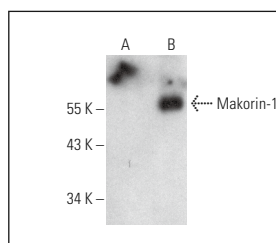
Molecular Weight of Makorin-1: 53 kDa.

Positive Controls: Makorin-1 (h): 293T Lysate: sc-117304 or human testis extract: sc-363781.

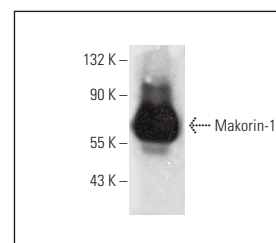
RECOMMENDED SUPPORT REAGENTS

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.

DATA



Makorin-1 (C-8): sc-515815. 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.



Makorin-1 (C-8): sc-515815. Western blot analysis of Makorin-1 expression in human testis tissue extract.

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.