SANTA CRUZ BIOTECHNOLOGY, INC.

REPIN1 (T-15): sc-79708



BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. REPIN1 (replication initiator 1), also known as ZNF464 (zinc finger protein 464), AP4 or RIP60, is a 567 amino acid nuclear protein involved in initiation of chromosomal DNA synthesis in mammalian cells, which binds 5'-ATT-3' reiterated sequences near or within the OBR (origin of bidirectional replication) zone. Existing as a homodimer and homomultimer, REPIN1 also exists in a complex with RIP100 and Geminin. REPIN1 contains 15 C_2H_2 -type zinc fingers, and is encoded by a gene located on human chromosome 7q36.1 and mouse chromosome 6 B2.3.

REFERENCES

- Dailey, L., Caddle, M.S., Heintz, N. and Heintz, N.H. 1990. Purification of RIP60 and RIP100, mammalian proteins with origin-specific DNA-binding and ATP-dependent DNA helicase activities. Mol. Cell. Biol. 10: 6225-6235.
- Caddle, M.S., Dailey, L. and Heintz, N.H. 1990. RIP60, a mammalian originbinding protein, enhances DNA bending near the dihydrofolate reductase origin of replication. Mol. Cell. Biol. 10: 6236-6243.
- Mastrangelo, I.A., Held, P.G., Dailey, L., Wall, J.S., Hough, P.V., Heintz, N. and Heintz, N.H. 1993. RIP60 dimers and multiples of dimers assemble link structures at an origin of bidirectional replication in the dihydrofolate reductase amplicon of Chinese hamster ovary cells. J. Mol. Biol. 232: 766-778.
- Houchens, C.R., Montigny, W., Zeltser, L., Dailey, L., Gilbert, J.M. and Heintz, N.H. 2000. The DHFR oribeta-binding protein RIP60 contains 15 zinc fingers: DNA binding and looping by the central three fingers and an associated proline-rich region. Nucleic Acids Res. 28: 570-581.
- Montigny, W.J., Houchens, C.R., Illenye, S., Gilbert, J., Coonrod, E., Chang, Y.C. and Heintz, N.H. 2001. Condensation by DNA looping facilitates transfer of large DNA molecules into mammalian cells. Nucleic Acids Res. 29: 1982-1988.
- Kim, M.Y., Jeong, B.C., Lee, J.H., Kee, H.J., Kook, H., Kim, N.S., Kim, Y.H., Kim, J.K., Ahn, K.Y. and Kim, K.K. 2006. A repressor complex, AP4 transcription factor and Geminin, negatively regulates expression of target genes in nonneuronal cells. Proc. Natl. Acad. Sci. USA 103: 13074-13079.
- Klöting, N., Wilke, B. and Klöting, I. 2007. Triplet repeat in the REPIN1 3'-untranslated region on rat chromosome 4 correlates with facets of the metabolic syndrome. Diabetes Metab. Res. Rev. 23: 406-410.

CHROMOSOMAL LOCATION

Genetic locus: REPIN1 (human) mapping to 7q36.1; Repin1 (mouse) mapping to 6 B2.3.

SOURCE

REPIN1 (T-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of REPIN1 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-79708 P, (100 μ g 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-79708 X, 200 μ g/0.1 ml.

APPLICATIONS

REPIN1 (T-15) is recommended for detection of REPIN1 of mouse, rat and human 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).

REPIN1 (T-15) is also recommended for detection of REPIN1 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for REPIN1 siRNA (h): sc-76386, REPIN1 siRNA (m): sc-76387, REPIN1 shRNA Plasmid (h): sc-76386-SH, REPIN1 shRNA Plasmid (m): sc-76387-SH, REPIN1 shRNA (h) Lentiviral Particles: sc-76386-V and REPIN1 shRNA (m) Lentiviral Particles: sc-76387-V.

REPIN1 (T-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of REPIN1: 64 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) Immunofluo-rescence: use donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.

PROTOCOLS

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