SANTA CRUZ BIOTECHNOLOGY, INC.

REXO2 (H-138): sc-98414

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Proper DNA and RNA metabolism requires nucleases which function in DNA replication, recombination and repair, as well as in RNA processing and degradation events. REXO2 (RNA exonuclease 2), also called RFN or SFN, is the human homolog of the *E. coli* exoribonuclease ORN. Functioning as a 3'-to-5' exoribonuclease, REXO2 degrades single-stranded RNA or DNA and, based on its similarity with ORN, may be involved in cellular responses to DNA-damaging agents. Additionally, REXO2 is implicated in cellular nucleotide recycling and can use manganese as a cofactor. Two isoforms of REXO2 exist due to alternative splicing events. Isoform 1 is localized to the mitochondria, while isoform 2 is localized to the nucleus.

REFERENCES

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3. Zhang, X.X., Lilley, A.K., Bailey, M.J. and Rainey, P.B. 2004. Functional and phylogenetic analysis of a plant-inducible oligoribonuclease (ORN) gene from an indigenous *Pseudomonas plasmid*. Microbiology 150: 2889-2898.
4. Ito, S., Kita, K., Zhai, L., Wano, C., Suzuki, T., Yamaura, A. and Suzuki, N. 2004. Involvement of human small fragment nuclease in the resistance of human cells to UV-C-induced cell death. Photochem. Photobiol. 80: 281-285.
5. Young Park, A., Elvin, C.M., Hamdan, S.M., Wood, R.J., Liyou, N.E., Hamwood, T.E., Jennings, P.A. and Dixon, N.E. 2007. Hydrolysis of the 5'-p-nitrophenyl ester of TMP by oligoribonucleases (ORN) from *Escherichia coli*, *Mycobacterium smegmatis*, and human. Protein Expr. Purif. 57: 180-187.

CHROMOSOMAL LOCATION

Genetic locus: REXO2 (human) mapping to 11q23.2; Rexo2 (mouse) mapping to 9 A5.3.

SOURCE

REXO2 (H-138) is a rabbit polyclonal antibody raised against amino acids 39-176 mapping within an internal region of REXO2 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.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

REXO2 (H-138) is recommended for detection of REXO2 of mouse, rat 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).

Suitable for use as control antibody for REXO2 siRNA (h): sc-96458, REXO2 siRNA (m): sc-152820, REXO2 shRNA Plasmid (h): sc-96458-SH, REXO2 shRNA Plasmid (m): sc-152820-SH, REXO2 shRNA (h) Lentiviral Particles: sc-96458-V and REXO2 shRNA (m) Lentiviral Particles: sc-152820-V.

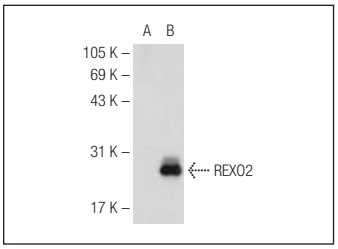
Molecular Weight of REXO2: 24 kDa.

Positive Controls: HeLa nuclear extract: sc-2120.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



REXO2 (H-138): sc-98414. Western blot analysis of REXO2 expression in non-transfected: sc-117752 (**A**) and mouse REXO2 transfected: sc-123082 (**B**) 293T whole cell lysates.

RESEARCH USE

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