

# REXO2 (H-7): sc-166726

## 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

1. Nguyen, L.H., et al. 2000. The human homolog of *Escherichia coli* ORN degrades small single-stranded RNA and DNA oligomers. *J. Biol. Chem.* 275: 25900-25906.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607149. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Zhang, X.X., et al. 2004. Functional and phylogenetic analysis of a plant-inducible oligoribonuclease (ORN) gene from an indigenous *Pseudomonas plasmid*. *Microbiology* 150: 2889-2898.
4. Ito, S., et al. 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., et al. 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-7) is a mouse monoclonal antibody raised against amino acids 39-176 mapping within an internal region of REXO2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

REXO2 (H-7) is available conjugated to agarose (sc-166726 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166726 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166726 PE), fluorescein (sc-166726 FITC), Alexa Fluor® 488 (sc-166726 AF488), Alexa Fluor® 546 (sc-166726 AF546), Alexa Fluor® 594 (sc-166726 AF594) or Alexa Fluor® 647 (sc-166726 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166726 AF680) or Alexa Fluor® 790 (sc-166726 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

REXO2 (H-7) is recommended for detection of REXO2 of mouse, rat and 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 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.

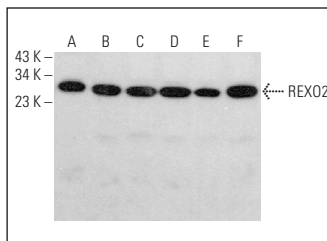
Molecular Weight of REXO2: 24 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, K-562 nuclear extract: sc-2130 or K-562 whole cell lysate: sc-2203.

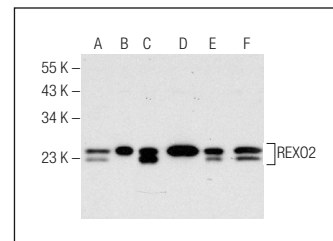
## RECOMMENDED SUPPORT REAGENTS

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



REXO2 (H-7): sc-166726. Western blot analysis of REXO2 expression in WI-38 (A), EOC 20 (B), Hep G2 (C), 3T3-L1 (D), A549 (E) and A-10 (F) whole cell lysates.



REXO2 (H-7): sc-166726. Western blot analysis of REXO2 expression in HeLa (A) and K-562 (B) nuclear extracts and Hs 181 Tes (C), K-562 (D), T-47D (E) and MDA-MB-468 (F) whole cell lysates.

## 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](http://www.scbt.com) for detailed protocols and support products.