

TREX-1 (m): 293T Lysate: sc-124276

BACKGROUND

TREX-1 (three prime repair exonuclease-1), also known as trophoblast expressed 1, CRV, AGS1, AGS5, DRN3, HERNS or DNase III, is a member of the exonuclease superfamily and belongs to the TREX family. Members of the TREX family are involved in DNA metabolism and repair. TREX-1 is expressed in spleen, liver, thymus, colon, heart, brain and small intestine. It localizes to the nucleus and exists as a homodimer. TREX-1 is an exonuclease and its activity requires magnesium as a cofactor. TREX-1 has a preference for double stranded DNA and functions in the 3'-5' direction yielding nucleoside 5'-phosphates. TREX-1 also interacts with the SET complex (an endoplasmic reticulum (ER)-associated complex) and participates in granzyme A-mediated apoptosis. Mutations or defects in the gene encoding TREX-1 have been associated with a variety of diseases, including systemic lupus erythematosus, chilblain lupus (CHBL), Aicardi-Goutieres syndrome type 1 (AGS1) and type 5 (AGS5) and autosomal dominant retinal vasculopathy with cerebral leukodystrophy (CRV).

REFERENCES

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3. Chowdhury, D., et al. 2006. The exonuclease TREX-1 is in the SET complex and acts in concert with nm23-H1 to degrade DNA during granzyme A-mediated cell death. *Mol. Cell* 23: 133-142.
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6. Coscoy, L. and Raulet, D.H. 2007. DNA mismanagement leads to immune system oversight. *Cell* 131: 836-838.
7. Yang, Y.G., et al. 2007. TREX-1 exonuclease degrades ssDNA to prevent chronic checkpoint activation and autoimmune disease. *Cell* 131: 873-886.
8. Lee-Kirsch, M.A., et al. 2007. Mutations in the gene encoding the 3'-5' DNA exonuclease TREX-1 are associated with systemic lupus erythematosus. *Nat. Genet.* 39: 1065-1067.
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CHROMOSOMAL LOCATION

Genetic locus: *Trex1* (mouse) mapping to 9 F2.

PRODUCT

TREX-1 (m): 293T Lysate represents a lysate of mouse TREX-1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

TREX-1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive TREX-1 antibodies. Recommended use: 10-20 µl per lane.

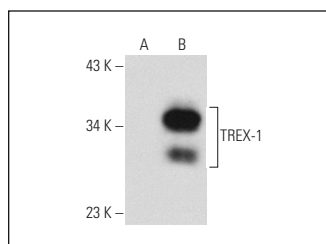
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

TREX-1 (C-11): sc-133112 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse TREX-1 expression in TREX-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



TREX-1 (C-11): sc-133112. Western blot analysis of TREX-1 expression in non-transfected: sc-117752 (A) and mouse TREX-1 transfected: sc-124276 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.