# SANTA CRUZ BIOTECHNOLOGY, INC.

# TREX-1 (H-80): sc-67292



# BACKGROUND

TREX-1 (3' 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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- 4. Wang, J.Y. and Edelmann, W. 2006. Mismatch repair proteins as sensors of alkylation DNA damage. Cancer Cell 9: 417-418.
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- 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 (human) mapping to 3p21.31; Trex1 (mouse) mapping to 9 F2.

# SOURCE

TREX-1 (H-80) is a rabbit polyclonal antibody raised against amino acids 290-369 mapping at the C-terminus of TREX-1 of human origin.

#### PRODUCT

Each vial contains 200  $\mu$ g IgG 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-67292 X, 200  $\mu$ g/0.1 ml.

## **APPLICATIONS**

TREX-1 (H-80) is recommended for detection of 3' repair exonuclease 1 of human and, to a lesser extent, mouse and rat 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 TREX-1 siRNA (h): sc-63157, TREX-1 siRNA (m): sc-63158, TREX-1 shRNA Plasmid (h): sc-63157-SH, TREX-1 shRNA Plasmid (m): sc-63158-SH, TREX-1 shRNA (h) Lentiviral Particles: sc-63157-V and TREX-1 shRNA (m) Lentiviral Particles: sc-63158-V.

TREX-1 (H-80) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TREX-1: 33 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

#### **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<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> 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.

# MONOS Satisfation Guaranteed

# Try TREX-1 (E-6): sc-271870 or TREX-1 (C-11):

**sc-133112**, our highly recommended monoclonal aternatives to TREX-1 (H-80).