

# Recombinant Human TREX1 Protein (Met56-Thr291), His tagged

Cat. No. TREX1-3539H Lot. No. (See product label)

## SPECIFICATION

### Product Overview

Recombinant human TREX1 (Met56-Thr291) protein fused with His tag was expressed in E. coli.

### Species

Human

### Source

E.coli

### ProteinLength

Met56-Thr291

### Description

Major cellular 3'-to-5' DNA exonuclease which digests single-stranded DNA (ssDNA) and double-stranded DNA (dsDNA) with mismatched 3' termini. Prevents cell-intrinsic initiation of autoimmunity. Acts by metabolizing DNA fragments from endogenous retroelements, including L1, LTR and SINE elements. Unless degraded, these DNA fragments accumulate in the cytosol and activate the IFN-stimulatory DNA (ISD) response and innate immune signaling. Prevents chronic ATM-dependent checkpoint activation, by processing ssDNA polynucleotide species arising from the processing of aberrant DNA replication intermediates. Inefficiently degrades oxidized DNA, such as that generated upon antimicrobial reactive oxygen production or upon absorption of UV light. During GZMA-mediated cell death, contributes to DNA damage in concert with NME1. NME1 nicks one strand of DNA and TREX1 removes bases from the free 3' end to enhance DNA damage and prevent DNA end reannealing and rapid repair.

### Molecular Mass

26.86 kDa

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<b>Purity</b>	>90 % as determined by SDS-PAGE.
<b>Notes</b>	For research use only.
<b>Storage</b>	Use a manual defrost freezer and avoid repeated freeze thaw cycles. Store at 2 to 8 centigrade for one week. Store at -20 to -80 centigrade for twelve months from the date of receipt.
<b>Storage Buffer</b>	Supplied as solution form in PBS pH 7.5 or lyophilized from PBS pH 7.5.
<b>Reconstitution</b>	Reconstitute in sterile water for a stock solution.
<b>Shipping</b>	In general, proteins are provided as lyophilized powder/frozen liquid. They are shipped out with dry ice/blue ice unless customers require otherwise.

## GENE INFORMATION

<b>Gene Name</b>	TREX1 three prime repair exonuclease 1 [ Homo sapiens (human) ]
<b>Official Symbol</b>	TREX1
<b>Synonyms</b>	TREX1; three prime repair exonuclease 1; AGS1, Aicardi Goutieres syndrome 1; DRN3; DNase III; 3 repair exonuclease 1; 3-5 exonuclease TREX1; CRV; AGS1; HERNS; DKFZp434J0310;
<b>Gene ID</b>	11277
<b>mRNA Refseq</b>	NM_016381
<b>Protein Refseq</b>	NP_057465

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<b>MIM</b>	606609
<b>UniProt ID</b>	Q9NSU2

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