

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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Purity	>90 % as determined by SDS-PAGE.
Notes	For research use only.
Storage	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.
Storage Buffer	Supplied as solution form in PBS pH 7.5 or lyophilized from PBS pH 7.5.
Reconstitution	Reconstitute in sterile water for a stock solution.
Shipping	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

Gene Name	TREX1 three prime repair exonuclease 1 [Homo sapiens (human)]
Official Symbol	TREX1
Synonyms	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;
Gene ID	11277
mRNA Refseq	NM_016381
Protein Refseq	NP_057465

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MIM	606609
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UniProt ID	Q9NSU2
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