Recombinant Human TREX1 protein, His/Trx-tagged

Cat. No. TREX1-2756H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human TREX1 protein (1-369 aa, full length), fused to 6xHis/Trx-tag at N-terminus, was expressed in Baculovirus and purified by IMAC.
Species	Human
Source	Baculovirus
ProteinLength	369
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.
Form	Liquid. 10mM Tris-HCl, 1mM EDTA, pH8.0, 50% glycerol.
Molecular Mass	Predicted band size: 57.2 kDa; Observed band size: 62 kDa.

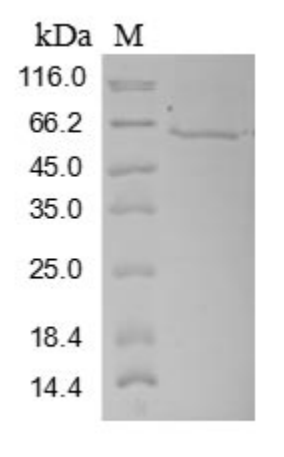
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AA Sequence	MGPGARRQGRIVQGRPEMCFCPPPTPLPPLRILTLGTHTPTPCSSPGSAAGTYPTM GSQALPPGPMQTLIFFDMEATGLPFSQPKVTELCLLAVHRCALESPPTSQGPPPTVP PPPRVVDKLSLCVAPGKACSPAASEITGLSTAVLAAHGRQCFDDNLANLLLAFLRRQ PQPWCLVAHNGDRYDFPLLQAELAMLGLTSALDGAFCVDSITALKALERASSPSEH GPRKSYSLGSIYTRLYGQSPPDSHTAEGDVLALLSICQWRPQALLRWVDAHARPFG TIRPMYGVTASARTKPRPSAVTTTAHLATTRNTSPSLGESRGTKDLPPVKDPGALSR EGLLAPLGLLAILTLAVATLYGLSLATPGE
Endotoxin	<1.0 EU per 1μg of the protein by the LAL method.
Purity	≥85%, by SDS-PAGE quantitative densitometry by Coomassie Blue Staining.
Storage	Short term: 2 to 8 centigrade, one week from the date of receipt; Long term: -20 to -80 centigrade, six months from the date of receipt.
Concentration	0.15 mg/ml, by the Bradford Method.

GENE INFORMATION

Gene Name	TREX1
Official Symbol	TREX1
Synonyms	CRV; AGS1; DRN3; HERNS
Gene ID	11277
mRNA Refseq	NM_033629.6
Protein Refseq	NP_338599.1

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MIM	606609
UniProt ID	Q9NSU2
SDS-PAGE of TREX1-2756H	 (Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

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