

## Recombinant Human TREX1 protein, His/Trx-tagged

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

### SPECIFICATION

<b>Product Overview</b>	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.
<b>Species</b>	Human
<b>Source</b>	Baculovirus
<b>ProteinLength</b>	369
<b>Description</b>	<p>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.</p>
<b>Form</b>	Liquid. 10mM Tris-HCl, 1mM EDTA, pH8.0, 50% glycerol.
<b>Molecular Mass</b>	Predicted band size: 57.2 kDa; Observed band size: 62 kDa.

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**AA Sequence**

MPGGARRQGRIVQGRPEMCFPPPTLPPLRILTLGHTPTPCSSPGSAAGTYPTM  
 GSQALPPGPMQTLIFFDMEATGLPFSQPKVTELCLLAVHRCALESPTSQGPPTVP  
 PPPRVVDKLSLCVAPGKACSPAASEITGLSTAVLAAHGRQCFDDNLANLLLAFLRRQ  
 PQPWCLVAHNGDRYDFLLQAELAMLGLTSALDGAFVDSITALKALERASSPSEH  
 GPRKSYSLSIYTRLYGQSPDSHTAEGDVLALLSICQWRPQALLRWVDAHARPFQ  
 TIRPMYGVASARTKPRPSAVTTTAHLATTRNTSPSLGESRGTCDLPPVKDPPGALS  
 ELLAPLGLLAILTLAVATLYGLSLATPGE

**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** [TRES1](#)

**Official Symbol** [TRES1](#)

**Synonyms** CRV; AGS1; DRN3; HERNS

**Gene ID** [11277](#)

**mRNA Refseq** [NM\\_033629.6](#)

**Protein Refseq** [NP\\_338599.1](#)

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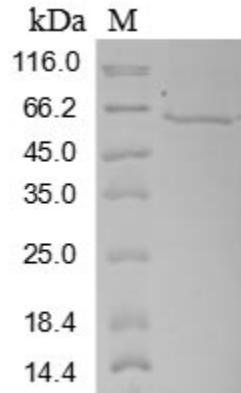
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**MIM** 606609

**UniProt ID** Q9NSU2

**SDS-PAGE of  
TRESX1-2756H**



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

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