

Product datasheet for **MC226976**

Trex1 (NM_001012236) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Trex1 (NM_001012236) Mouse Untagged Clone
Tag: Tag Free
Symbol: Trex1
Synonyms: AU041952
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC226976 representing NM_001012236
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**C

ATGGGCTCACAGACCCTGCCCATGGTCACATGCAGACCCTCATCTTCTTAGACCTGGAAGCCACTGGCC
 TGCCCTTCGTCTCGGCCGAAGTCACAGAGCTGTGCCTGCTGGCTGTCCACAGACGTGCTCTGGAGAACAC
 TTCCATTTCTCAGGGACATCCACCTCCAGTGCCAGACC GCCCGTGTGGTGGACAAGCTCTCTGTGC
 ATTGCTCCAGGAAAGCCTGTAGCCCTGGGGCCAGTGAGATCACAGGTCTGAGCAAAGCTGAGCTGGAA
 TACAGGGGCGTCAACGTTTCGATGACAACCTGGCCATCCTGCTCCGAGCCTTCTGCAGCGCCAGCCACA
 GCCTTGCTGCCTGTGGCACACAACGGTGACCGCTATGACTTTCCTCTGCTCCAGACAGAGCTTGCTAGG
 CTGAGCACTCCCAGTCCCCTAGATGGTACCTTCTGTGTGGACAGCATCGCTGCCCTAAAGGCCTTGGAA
 CAGCTAGCAGCCCTCAGGGAATGGTTCGAGGAAAAGCTACAGCCTGGGCAGCATCTACACCCGCTGTA
 CTGGCAAGCACCAGACTCACATACTGCTGAAGGTGATGTTCTAACCTGCTCAGCATCTGTCAAGTGG
 AAGCCACAGGCCCTACTGCAGTGGTGGACGAACATGCCCGCCCTTAGCACCGTCAAGCCCATGTACG
 GCACTCCGGTACCCTGGAACAACCAACCTAAGGCCACATGCTGCCACAGCTACTACACCCCTGGCCAC
 AGCCAATGGAAGTCCCAGCAATGGCAGGAGCAGCGACCTAAGAGTCTCCTCCAGAGAAGGTCCCAGAA
 GCCCATCACAGGAGGGCTGCTGGCCCACTGAGCCTGCTGACCTCCTGACCTTGCAATAGCCACTC
 TGTATGGACTTCTCTGGCTCACCTGGCAGTAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001012236
Insert Size: 945 bp



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OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_001012236.1 , NP_001012236.1
RefSeq Size:	1060 bp
RefSeq ORF:	945 bp
Locus ID:	22040
UniProt ID:	Q91XB0
Cytogenetics:	9 F2
Gene Summary:	<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.[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Variants 1 and 2 encode the same isoform.</p>