

Product datasheet for **MG204492**

Trex1 (NM_011637) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Trex1 (NM_011637) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Trex1
Synonyms: AU041952
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG204492 representing NM_011637
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGCTCACAGACCCTGCCCCATGGTCACATGCAGACCCTCATCTTCTTAGACCTGGAAGCCACTGGCC
TGCCTTCGTCTCGGCCGAAGTCACAGAGCTGTGCCTGCTGGCTGTCCACAGACGTGCTCTGGAGAACAC
TTCCATTTCTCAGGGACTTCCACCTCCAGTGCCAGACC GCCCGTGTGGTGGACAAGCTCTCTGTGC
ATTGCTCCAGGAAAGCCTGTAGCCCTGGGGCCAGTGAGATCACAGGTCTGAGCAAAGCTGAGCTGGAAG
TACAGGGGCGTCAACGCTTCGATGACAACCTGGCCATCCTGCTCCGAGCCTTCTGCAGGCCAGCCACA
GCCTTGCTGCCTTGTGGACACAACGGTGACCGCTATGACTTTCCTCTGCTCCAGACAGAGCTTGCTAGG
CTGAGCACTCCCAGTCCCCTAGATGGTACCTTCTGTGTGGACAGCATCGCTGCCCTAAAGCCTTGGAAAC
AAGCTAGCAGCCCTCAGGGAATGGTTCGAGGAAAAGCTACAGCCTGGGCAGCATCTACACCCGCCTGTA
CTGGCAAGCACCGACAGACTCACATACTGCTGAAGGTGATGTTCTAACCTGCTCAGCATCTGTCAGTGG
AAGCCACAGGCCCTACTGCAGTGGGTGGACGAACATGCCCGGCCCTTAGCACCGTCAAGCCCATGTACG
GCACTCCGGTACCACTGGAACAACCAACCTAAGGCCACATGCTGCCACAGCTACTACACCCCTGGCCAC
AGCCAATGGAAGTCCCAGCAATGGCAGGAGCAGGGGACCTAAGAGTCCTCCTCCAGAGAAGTCCCAGAA
GCCCATCACAGGAGGGGCTGCTGGCCCCACTGAGCCTGCTGACCCTCCTGACCTTGGCAATAGCCACTC
TGATGGACTCTTCTGGCCTCACCTGGGCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG204492 representing NM_011637
Red=Cloning site Green=Tags(s)

MGSQTLPHGHMQTLIFLDLEATGLPSSRPEVTELCLLAVHRRALENTSISQGLPPPVPVPPRVVDKLSLC
 IAPGKACSPGASEITGLSKAELEVQGRQRFDDNLAILLRAFLQRQPQCCLVAHNGDRYDFLLQTELAR
 LSTPSPLDGTFVCVDSIAALKALEQASSPSGNGSRKSYSLSLSIYTRYWQAPTDSHTAEGDVLTLISICQW
 KPQALLQWVDEHARPFSTVKPMYGTATTGTTNLRPHAATATTPLATANGSPSNGRSRGPKSPPPEKVPE
 APSQEGLLAPLSLLTLTLAIATLYGLFLASPGQ

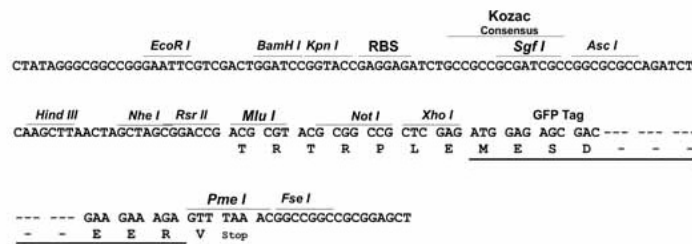
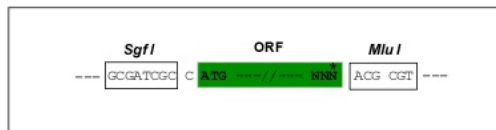
TRTRPLE - GFP Tag - V

Chromatograms: https://cdn.origene.com/chromatograms/ja3243_b09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



ACCN: NM_011637

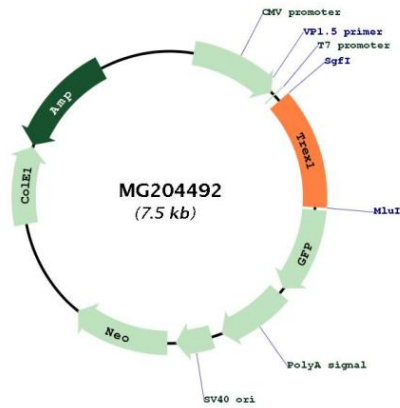
ORF Size: 942 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
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_011637.5
RefSeq Size:	1074 bp
RefSeq ORF:	945 bp
Locus ID:	22040
UniProt ID:	Q91XB0
Cytogenetics:	9 F2
Gene Summary:	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]

Product images:



Circular map for MG204492