OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RG207113

Thymine DNA glycosylase (TDG) (NM_003211) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Thymine DNA glycosylase (TDG) (NM_003211) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Thymine DNA glycosylase
Synonyms:	hTDG
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG207113 representing NM_003211
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAAGCGGAGAACGCGGGCAGCTATTCCCTTCAGCAAGCTCAAGCTTTTTATACGTTTCCATTTCAAC
AACTGATGGCTGAAGCTCCTAATATGGCAGTTGTGAATGAACAGCAAATGCCAGAAGAAGTTCCAGCCCC
AGCTCCTGCTCAGGAACCAGTGCAAGAGGCTCCAAAAGGAAGAAAAAGAAAACCCAGAACAACAGAACCA
AAACAACCAGTGGAACCCAAAAAACCTGTTGAGTCAAAAAAATCTGGCAAGTCTGCAAAATCAAAAGAAA
AACAAGAAAAAATTACAGACACATTTAAAGTAAAAAGAAAAGTAGACCGTTTTAATGGTGTTTCAGAAGC
TGAACTTCTGACCAAGACTCTCCCCGATATTTTGACCTTCAATCTGGACATTGTCATTATTGGCATAAAC
CCGGGACTAATGGCTGCTTACAAAGGGCATCATTACCCTGGACCTGGAAACCATTTTTGGAAGTGTTTGT
TTATGTCAGGGCTCAGTGAGGTCCAGCTGAACCATATGGATGATCACACTCTACCAGGGAAGTATGGTAT
TGGATTTACCAACATGGTGGAAAGGACCACGCCCGGCAGCAAAGATCTCTCCAGTAAAGAATTTCGTGAA
GGAGGACGTATTCTAGTACAGAAATTACAGAAATATCAGCCACGAATAGCAGTGTTTAATGGAAAATGTA
TTTATGAAATTTTTAGTAAAGAAGTTTTTGGAGTAAAGGTTAAGAACTTGGAATTTGGGCTTCAGCCCCA
TAAGATTCCAGACACAGAAACTCTCTGCTATGGTATGCCATCATCCAGTGCAAGATGTGCTCAGTTTCCT
CGAGCCCAAGACAAAGTTCATTACTACATAAAACTGAAGGACTTAAGAGATCAGTTGAAAGGCATTGAAC
GAAATATGGACGTTCAAGAGGTGCAATATACATTTGACCTACAGCTTGCCCAAGAGGATGCAAAGAAGAT
GGCTGTTAAGGAAGAAAAATATGATCCAGGTTATGAGGCAGCATATGGTGGTGCTTACGGAGAAAATCCA
TGCAGCAGTGAACCTTGTGGCTTCTCTTCAAATGGGCTAATTGAGAGCGTGGAGTTAAGAGGAGAATCAG
CTTTCAGTGGCATTCCTAATGGGCAGTGGATGACCCAGTCATTTACAGACCAAATTCCTTCCTTTAGTAA
TCACTGTGGAACACAAGAACAGGAAGAAGAAAGCCATGCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

View online »

Protein Sequence:

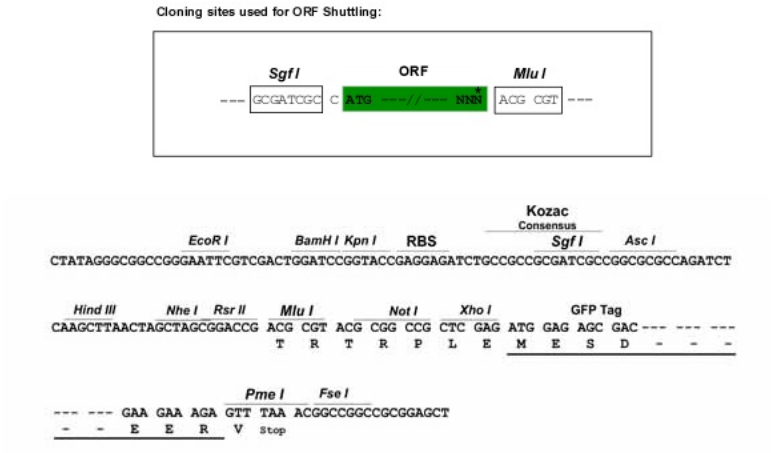
>RG207113 representing NM_003211
Red=Cloning site Green=Tags(s)

MEAENAGSYSLQQAQAFYTFPFQQLMAEAPNMAVVNEQQMPEEVPAPAPAQEPVQEAPKGRKRKPRTTEP
KQPVEPKKPVESKKSGKSAKSKEKQEKITDTFKVKRKVDRFNGVSEAELLTKTLPDILTFNLDIVIIGIN
PGLMAAYKGHHYPGPGNHFWKCLFMSGLSEVQLNHMDDHTLPGKYGIGFTNMVERTTPGSKDLSSKEFRE
GGRILVQKLQKYQPRIAVFNGKCIYEIFSKEVFGVKVKNLEFGLQPHKIPDTETLCYGMPSSSARCAQFP
RAQDKVHYYIKLKDLRDQLKGIERNMDVQEVQYTFDLQLAQEDAKKMAVKEEKYDPGYEAAYGGAYGENP
CSSEPCGFSSNGLIESVELRGESAFSGIPNGQWMTQSFTDQIPSFSNHCGTQEQEEESHA

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003211

ORF Size: 1230 bp

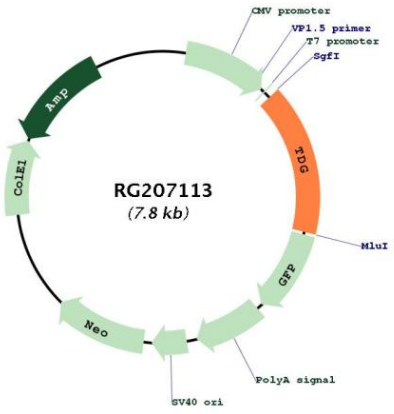
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	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_003211.2
RefSeq Size:	3229 bp
RefSeq ORF:	1233 bp
Locus ID:	6996
UniProt ID:	Q13569
Cytogenetics:	12q23.3
Domains:	UDG
Protein Families:	Druggable Genome
Protein Pathways:	Base excision repair
Gene Summary:	The protein encoded by this gene belongs to the TDG/mug DNA glycosylase family. Thymine-DNA glycosylase (TDG) removes thymine moieties from G/T mismatches by hydrolyzing the carbon-nitrogen bond between the sugar-phosphate backbone of DNA and the mispaired thymine. With lower activity, this enzyme also removes thymine from C/T and T/T mispairings. TDG can also remove uracil and 5-bromouracil from mispairings with guanine. This enzyme plays a central role in cellular defense against genetic mutation caused by the spontaneous deamination of 5-methylcytosine and cytosine. This gene may have a pseudogene in the p arm of chromosome 12. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG207113