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 MC209507

Tdg (NM_172552) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tdg (NM_172552) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Tdg
Synonyms:	E130317C12Rik; JZA-3; Jza1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC209507 representing NM_172552 Red=Cloning site Blue=ORF Orange=Stop codon TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGACGCAGAGGCCGCGCGCAGCTATTCTCTGGAGCAAGTTCAAGCTTTGTATTCATTTCCATTTCAAC AAATGATGGCAGAAGTTCCTAACATGGCAGTCACGACTGGACAGCAGGTGCCAGCAGTAGCTCCTAACAT GGCAACCGTGACAGAACAGCAGGTGCCCGAAGACGCTCCTGTCCAGGAACCTGCACCAGAAGCTCCAAAG AGAAGGAAAAGGAAACCCAGAGCAGCAGAGCCCCAGGAACCAGTGGAGCCCAAAAAACCTGCTACGTCGA AGAAATCCGGCAAGTCTACAAAATCAAAGGAAAAGCAGGAGAAAATCACAGACGCGTTTAAAGTGAAAAG GAAAGTGGACCGCTTCAACGGCGTCTCTGAAGCTGAGCTTCTGACCAAGACTCTTCCTGACATTTTGACC TTCAATCTGGATATTGTGATCATTGGCATTAACCCGGGATTAATGGCTGCTTACAAAGGACATCACTACC CTGGGCCTGGAAATCACTTCTGGAAGTGTCTGTTCATGTCGGGGCTGAGTGAGGTGCAGCTGAATCACAT GGATGACCACACCTTACCCGGCAAGTACGGCATCGGATTCACCAACATGGTGGAACGGACGACGCCGGGC AGCAAGGATCTGTCTAGTAAAGAGTTCCGGGAAGGAGGGCGCATCCTGGTGCAGAAACTGCAGAAATATC AGCCACGAATAGCGGTGTTTAATGGAAAATGTATTTATGAAATTTTCAGTAAAGAAGTTTTTGGAGTAAA GGTTAAGAACTTGGAATTTGGGCTTCAACCCCACAAGATCCCAGACACAGAAACTCTGTGCTACGTCATG CCGTCGTCCAGCGCCAGATGTGCTCAGTTTCCCCGGGCCCAGGACAAAGTTCATTACTACATTAAGCTGA AGGACTTGAGAGACCAACTGAAAGGCATTGAACGCAACGCGGACGTTCAGGAAGTGCAGTATACATTTGA CCTGCAGCTTGCGCAAGAGGACGCAAAGAAGATGGCTGTTAAGGAAGAAAAGTATGATCCAGGCTATGAG GCAGCTTACGGCGGTGCCTATGGGGAAAACCCATGTAATGGGGAACCTTGTGGCATTGCTTCAAATGGGC TAACAGCTCACAGTGCGGAGCCGAGAGGAGAAGCGGCCCCCAGCGATGTTCCGAATGGGCAGTGGATGGC ACAGTCGTTTGCAGAGCAGATCCCTTCTTTTAATAATTGTGGGACCCGAGAGCAGGAAGAAGAGAGCCAC GCTTAG AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC TGGATTACAAGGATGACGACGATAAGGTTTAA

View online »

Restriction Sites:	SgfI-RsrII
ACCN:	NM_172552
Insert Size:	1266 bp
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).
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_172552.3, NP_766140.2
RefSeq Size:	3218 bp
RefSeq ORF:	1266 bp
Locus ID:	21665
UniProt ID:	P56581
Cytogenetics:	10 39.72 cM

Gene Summary:

DNA glycosylase that plays a key role in active DNA demethylation: specifically recognizes and binds 5-formylcytosine (5fC) and 5-carboxylcytosine (5caC) in the context of CpG sites and mediates their excision through base-excision repair (BER) to install an unmethylated cytosine (PubMed:21817016). Cannot remove 5-hydroxymethylcytosine (5hmC). According to an alternative model, involved in DNA demethylation by mediating DNA glycolase activity toward 5-hydroxymethyluracil (5hmU) produced by deamination of 5hmC (PubMed:21722948). Also involved in DNA repair by acting as a thymine-DNA glycosylase that mediates correction of G/T mispairs to G/C pairs: in the DNA of higher eukaryotes, hydrolytic deamination of 5-methylcytosine to thymine leads to the formation of G/T mismatches. Its role in the repair of canonical base damage is however minor compared to its role in DNA demethylation. It is capable of hydrolyzing the carbon-nitrogen bond between the sugar-phosphate backbone of the DNA and a mispaired thymine. In addition to the G/T, it can remove thymine also from C/T and T/T mispairs in the order G/T >> C/T > T/T. It has no detectable activity on apyrimidinic sites and does not catalyze the removal of thymine from A/T pairs or from single-stranded DNA. It can also remove uracil and 5-bromouracil from mispairs with guanine. [UniProtKB/Swiss-Prot Function]
Transcript Variant: This variant (3) represents the longer variant and encodes the longest isoform (2).