

Product datasheet for **SC118636**

MTH1 (NUDT1) (NM_002452) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MTH1 (NUDT1) (NM_002452) Human Untagged Clone
Tag:	Tag Free
Symbol:	NUDT1
Synonyms:	MTH1
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Cell Selection:	None
Fully Sequenced ORF:	>NCBI ORF sequence for NM_002452, the custom clone sequence may differ by one or more nucleotides

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ATGGGCGCCTCCAGGCTCTATACCCTGGTGCTGGTCCTGCAGCCTCAGCGAGTTCTCCTGGGCATGAAAA
AGCGAGGCTTCGGGGCCGGCGGTGGAATGGCTTTGGGGGCAAAGTGCAAGAAGGAGAGACCATCGAGGA
TGGGGCTAGGAGGGAGCTGCAGGAGGAGAGCGGTCTGACAGTGGACGCCCTGCACAAGGTGGGCCAGATC
GTGTTTGAGTTCTGTGGCGAGCCTGAGCTCATGGACGTGCATGTCTTCTGCACAGACAGCATCCAGGGGA
CCCCCGTGGAGAGCGACGAAATGCGCCCATGCTGGTTCAGCTGGATCAGATCCCCTTCAAGGACATGTG
GCCCGACGACAGCTACTGGTTTCCACTCCTGCTTCAGAAGAAGAAATCCACGGGTACTIONCAAGTCCAG
GGTCAGGACACCATCCTGGACTACACTCCGCGAGGTGGACACGGTCTAG
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5' Read Nucleotide Sequence:	>OriGene 5' read for NM_002452 unedited AATTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGGTGGTGACCAGG TTTCTTGCCTTGATGTACTGGAGCAATCAGAAACACGGCGGCTTGAGAAAACCCAGGGAC CATGGGCGCCTCCAGGCTCTATACCCTGGTGTGGTCTGCAGCCTCAGCGAGTTCTCT GGGCATGAAAAAGCGAGGCTTCGGGGCCGGCCGGTGAATGGCTTTGGGGCAAAGTGCA AGAAGGAGAGACCATCGAGGATGGGGCTAGGAGGGAGCTGCAGGAGGAGAGCGGTCTGAC AGTGGACGCCCTGCACAAGGTGGGCCAGATCGTGTTTGAGTTTCGTGGGCGAGCCTGAGCT CATGGACGTGCATGTCTTCTGCACAGACAGCATCCAGGGGACCCCGTGGAGAGCGACGA AATGCGCCCATGCTGGTTNACAGCTGGATCAGATCCCCTTCAAGGACATGTGGCCCGACGA CAGCTACTGGTTTCCACTCCTGCTTCCAGAAAGAAATTCACGGGTACTTCAAGTTCCA GGGTCAGGACACCATCCTGGACTACACACTCCGCGAGGTGGACACGGTCTAGCGGGAGCC CAGGCAGCCCCTGGGCAGGAGACGTGGCTGCTGAACAGTCGAAACCATCTTNACCTGGG GGCATTGAGTGGCGCACACGCCGCTTTCATCTGGAATTAACCTGCATGGAAAGCCAAAT AAAGCCATCTAGCGGGGGAAAAAATAAACTCGACTCTACATTGCCCGCGCGGC CATAGCTGTTTCTGAACAAATCCCGTTGGCATCCCTGGGACCCCTCCAGTGCCTCT TCCTGGCCCTGGAAGTTGCCACTCCAGGGCCCCAACCTTGTNCTAAAAACAAGCTGC CTATTGTGC
3' Read Nucleotide Sequence:	>OriGene 3' read for NM_002452 unedited CGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTACACCGCTAGCAAGCTTTATTT TGCCTTCTCCAGTTAATCCAGATGAAACCCGGCTCTGCGCCACTCAATGCCCCAGCT GAAGATGGTTTGTGGATGTCCAAAAGCCACGTCTCCTGCCAGGGGCTGCACTGGGCTAC CGCTACACCGTGTACACCTCGCGGAGTGTGCACACCAGGATGGTGTCTGACCCTGGAAC TTGAAGTACCCCGGAATTTCTTATTCTGAAGCAGGAGTGAAACCACTATCTGCCCGAG GCCACATGTACTTGAAGGGATCTGATCCACCTGGAACCAGCATGGGCGCATTCCCCCG CTCTACACGGGGCCCCCTGAATGCTGCTGTGCACAAGACATGCACGTCCATGAGCTC AGGCTCGTCCAGAACTGAAACACGATCTGGCCACCTTGTGCAGGGCGAACACTGCCAA ACCGATCTACTACTGGAGCTGACTGCTAGGCGCATGCTGCATGGCCCTTACTTATTGCAC TTTGCACCCAAAGCCATTCTACCGGCCGGCCCCGAAGACTCACTTTTTTTCATGCCAGCA CAACTCGCTGAGGCTGCAGGACCACTACCAGGGCATAACAGCCTGCAGGCCACATGGAAC CTGGGTTCTCCAGCCGACGCGGGATCTGATTGCTCCAGTACATCAAGGCAAGAAACCTG GCCCTACCCTCGTGCCGAATATGGCCGTCCTATGTGAGCGCCTTACAAATTGTGACGAC TACTAACGAGCTTGCTTATATAACCTGAACCGTCACGCTAACGACATGGCGCCACGGGGC GGGGTATACCACCTTTGGAAGCTCGCGATTTGGGCCAAACAACCTTTCGTAATGGGGGA GATTGCAATACGGAGCAACGGTTTCGCCATGTGTCCTCAACCCCATCTGT
Restriction Sites:	NotI-NotI
ACCN:	NM_002452
Insert Size:	800 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).
RefSeq:	NM_002452.3 , NP_002443.3
RefSeq Size:	692 bp
RefSeq ORF:	471 bp
Locus ID:	4521

UniProt ID: [P36639](#), [A0A024R819](#)

Domains: NUDIX

Protein Families: Stem cell - Pluripotency

Gene Summary: Misincorporation of oxidized nucleoside triphosphates into DNA/RNA during replication and transcription can cause mutations that may result in carcinogenesis or neurodegeneration. The protein encoded by this gene is an enzyme that hydrolyzes oxidized purine nucleoside triphosphates, such as 8-oxo-dGTP, 8-oxo-dATP, 2-hydroxy-dATP, and 2-hydroxy rATP, to monophosphates, thereby preventing misincorporation. The encoded protein is localized mainly in the cytoplasm, with some in the mitochondria, suggesting that it is involved in the sanitization of nucleotide pools both for nuclear and mitochondrial genomes. Several alternatively spliced transcript variants, some of which encode distinct isoforms, have been identified. Additional variants have been observed, but their full-length natures have not been determined. A rare single-nucleotide polymorphism that results in the production of an additional, longer isoform (p26) has been described. [provided by RefSeq, Dec 2018]
Transcript Variant: This variant (1) encodes the predominant isoform (p18, also known as MTH1d). Variants 1, 2A, 3A, 4A, and 5 encode the same isoform.