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Product datasheet for SC307824

MTH1 (NUDT1) (NM_198949) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MTH1 (NUDT1) (NM_198949) Human Untagged Clone
Tag:	Tag Free
Symbol:	MTH1
Synonyms:	MTH1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene sequence for NM_198952.1 AAGCGGCGGTGCAGGTTTCTTGCCTTGATGTACTGGAGCAATCAGATCACACGGCGGCTT GGAGAGTGAGTGCAAGGTTTTATGAGTGGAATTAGCCCTCAGCAGATGGGGGAGCCAGAA GGCAGTTGGAGTGGGAAGAACCCAGGGACCATGGGCGCCTCCAGGCTCTATACCCTGGTG CTGGTCCTGCAGCCTCAGCGAGTTCTCCTGGGCATGAAAAAGCGAGGCTTCGGGGCCGGC CGGTGGAATGGCTTTGGGGGCAAAGTGCAAGAAGGAGAGACCATCGAGGATGGGGCTAGG AGGGAGCTGCAGGAGGAGAGCGGTCTGACAGTGGACGCCCTGCACAAGGTGGGCCAGATC GTGTTTGAGTTCGTGGGCGAGCCTGAGCTCATGGACGTGCATGTCTTCTGCACAGACAGC ATCCAGGGGACCCCCGTGGAGAGCGACGAAATGCGCCCATGCTGGTTCCAGCTGGATCAG ATCCCCTTCAAGGACATGTGGCCCGACGACAGCTACTGGTTTCCACTCCTGCTTCAGAAG AAGAAATTCCACGGGTACTTCAAGTTCCAGGGTCAGGACACCATCCTGGACTACACACTC CGCGAGGTGGACACGGTCTAGCGGGAGCCCAGGGCAGCCCCTGGGCAGGAGACGTGGCTG CTGAACAGCCGCAAACCATCTTCACCTGTGGGCATTGAGTGGCGCAGAGCCGGGTTTCAT CTGGAATTAACTGGATGGAAGGGAAAATAAAGCTATCTAGCGGTGAAAAAAAAAAAAAAA AAAAAAAAAAAAAA
Restriction Sites:	Please inquire
ACCN:	NM_198949
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).

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OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_198949.1, NP_945187.1
RefSeq Size:	816 bp
RefSeq ORF:	540 bp
Locus ID:	4521
UniProt ID:	P36639
Cytogenetics:	7p22.3
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 (2B) differs in the 5' UTR and 5' coding region compared to variant 1, resulting in translation initiation at an upstream ATG and an isoform (p22, also known as MTH1b) with a longer N-terminus compared to isoform p18. Variants 2B, 3B, and 4B encode the same isoform.

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