

Product datasheet for **SC321001**

DUT (NM_001025248) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: DUT (NM_001025248) Human Untagged Clone
Tag: Tag Free
Symbol: DUT
Synonyms: dUTPase
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC (PS100020)
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_001025248.1
GGGCGCGTCTTCAGGGTGAAGCCTGGCGCACGTCCGGAGGTGCCGAGGACCCAACCAGC
CCAAACTCTGGGGAAATGACTCCCTCTGCCCTCGCCCCGCGCTCTGCTACCATTTCCT
TACGTCTCTGCTTCGCTCAGCGATGCAAAACGCGCGAGGCGCACGCGAGGGCCGAAGC
CGCGGTACTCTCCGGGCCAGGCCCGCCCTCGGCCGCGCCGCGCAGCACGGGATTCCCCG
GCCGCTGTCCAGCGCTGGCCGCTGAGCCAAGGCTGCCGCGGAGCCAGTACAGTCGGGGC
CGCTGGCTGGAAGGGCGAGCTTCTAAGCGGGGGGAAGCCCGGCCCGGGGCCGGAGAC
ACCCGCCATTTACCCAGTAAGCGGGCCCGCCCTGCGGAGGTGGCGGCATGCAGTCCG
CTTTGCCCGGCTCTCCGAGCACGCCACGGCCCCACCCGGGGCTCCGCGCGCCCGGGG
CTACGACCTGTACAGTGCCTATGATTACACAATACCACCTATGGAGAAAGCTGTTGTGAA
AACGGACATTCAGATAGCGCTCCCTTCTGGGTGTTATGGAAGAGTGGCTCCACGGTCAGG
CTTGGCTGCAAAACACTTTATTGATGTAGGAGCTGGTGTATAGATGAAGATTATAGAGG
AAATGTTGGTGTGTACTGTTTAAATTTGGCAAAGAAAAGTTTGAAGTCAAAAAAGGTGA
TCGAATTGCACAGCTCATTTGCGAACGGATTTTTATCCAGAAATAGAAGAAGTTCAAGC
CTTGGATGACACCGAAAGGGTTTCAGGAGGTTTTGGTTCCACTGGAAAGAATTAATTTT
ATGCCAAGAACAGAAAACAAGAAGTCATACCTTTTTCTTAAAAAAAAAAAAAAAAAGTTTT
TGCTTCAAGTGTGTTTGGTGTGTTGCACTTCTGTAAGTACTAGCTTTACCTTCTAAAAG
TACTGCATTTTTTACTTTTTTTATGATCAAGGAAAAGATCATTAAAAAAAAACACAAG
AAGTTTTTCTTTGTTGTTGGATCAAAAAGAACTTTGTTTTTCCGCAATTGAAGTTGTA
TGTAATCTGCTTTGTGTTGACCTGATGTAACAGTGTCTTCTTAAATCAAATGTAAT
CAATTACAGATTAATAAAAAAAAAAGCCTGTATTTAACTCAAAAAAAAAAAAAAAAAAAAA
AAAAAA

Restriction Sites: Please inquire
ACCN: NM_001025248



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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).
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:	<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_001025248.1 , NP_001020419.1
RefSeq Size:	2146 bp
RefSeq ORF:	759 bp
Locus ID:	1854
UniProt ID:	P33316
Cytogenetics:	15q21.1
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Pyrimidine metabolism
Gene Summary:	<p>This gene encodes an essential enzyme of nucleotide metabolism. The encoded protein forms a ubiquitous, homotetrameric enzyme that hydrolyzes dUTP to dUMP and pyrophosphate. This reaction serves two cellular purposes: providing a precursor (dUMP) for the synthesis of thymine nucleotides needed for DNA replication, and limiting intracellular pools of dUTP. Elevated levels of dUTP lead to increased incorporation of uracil into DNA, which induces extensive excision repair mediated by uracil glycosylase. This repair process, resulting in the removal and reincorporation of dUTP, is self-defeating and leads to DNA fragmentation and cell death. Alternative splicing of this gene leads to different isoforms that localize to either the mitochondrion or nucleus. A related pseudogene is located on chromosome 19. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (1), also known as DUT-M, represents the longest transcript. It encodes the longest isoform (1), which includes a mitochondrial targeting sequence.</p>