

Product datasheet for SC318762

OriGene Technologies, Inc.

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TSTD1 (NM_001113205) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: TSTD1 (NM_001113205) Human Untagged Clone

Tag:Tag FreeSymbol:TSTD1

Synonyms: KAT; TST

Vector: <u>pCMV6 series</u>

Fully Sequenced ORF: >NCBI ORF sequence for NM_001113205, the custom clone sequence may differ by one or

more nucleotides

ATGGCTGGAGCGCCCACGGTCTCGCTTCCTGAACTCCGTTCACTCCTAGCCTCCGGACGG GCCCGGCTCTTCGACGTGCGCTCTCGCGAGGAGGCGGCAGCTGGGACCATCCCAGGGGCG CTCAACATCCCGGTGTCCGAGTTGGAGAGTGCTCTGCAGATGGAGCCAGCTGCCTTCCAG GCTTTATATTCTGCTGAGAAGCCAAAGCTGGAAGATGAGCATCTCGTTTTCTTCTGCAG ATGGGCAAGCGGGGCCTCCAGGCCACGCAGCTGGCCCGGAGTCTTGGATACACTGGGTAC

GGGGAGGTGTGGCTGCTAGCTGGGAGG

Restriction Sites: Please inquire ACCN: NM 001113205

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:

- 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: <u>NM 001113205.1</u>, <u>NP 001106676.1</u>

 RefSeq Size:
 688 bp

 RefSeq ORF:
 330 bp

 Locus ID:
 100131187

 UniProt ID:
 Q8NFU3

 Cytogenetics:
 1q23.3

Gene Summary: Thiosulfate:glutathione sulfurtransferase (TST) required to produce S-sulfanylglutathione

(GSS(-)), a central intermediate in hydrogen sulfide metabolism (PubMed:24981631). Provides

the link between the first step in mammalian H(2)S metabolism performed by the

sulfide:quinone oxidoreductase (SQOR) which catalyzes the conversion of H(2)S to thiosulfate, and the sulfur dioxygenase (SDO) which uses GSS(-) as substrate (PubMed:24981631). The thermodynamic coupling of the irreversible SDO and reversible TST reactions provides a model for the physiologically relevant reaction with thiosulfate as the sulfane donor

(PubMed:24981631).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (3) uses an alternate splice site in the 3' coding region that results in a frameshift and premature stop codon, compared to variant 1. The encoded

protein (isoform 3) has a shorter, distinct C-terminus compared to isoform 1.