

Product datasheet for **RC225033**

TSTD1 (NM_001113205) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: TSTD1 (NM_001113205) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: TSTD1
Synonyms: KAT; TST
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC225033 representing NM_001113205
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTGGAGCGCCACGGTCTCGCTTCTGAACTCCGTTCACTCCTAGCCTCCGGACGGGCCGGCTCT
TCGACGTGCGCTCTCGCAGGAGGCGGCAGCTGGGACCATCCAGGGGCGCTCAACATCCCGGTGCCGA
GTTGGAGAGTGCTCTGCAGATGGAGCCAGCTGCCTTCCAGGCTTATATTCTGCTGAGAAGCCAAAGCTG
GAAGATGAGCATCTCGTTTTCTTCTGTGATGGCAAGCGGGGCTCCAGGCCACGCAGCTGGCCCGGA
GTCTTGATACACTGGGTACGGGAGGTGTGGCTGCTAGCTGGGAGG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC225033 representing NM_001113205
Red=Cloning site Green=Tags(s)

MAGAPTVSLPELRSLLASGRARLFDVRSREEAAAGTIPGALNIPVSELESALQMEPAAFQALYSAEKPKL
EDEHLVFFCQMGRGLQATQLARSLGYTYGEVWLLAGR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8104_b12.zip

Restriction Sites: SgfI-MluI



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Cloning Scheme:


ACCN: NM_001113205

ORF Size: 327 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_001113205.2](#)

RefSeq Size: 688 bp

RefSeq ORF: 330 bp

Locus ID: 100131187

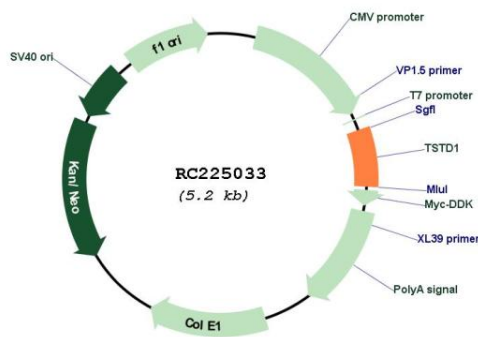
UniProt ID: [Q8NFU3](#)

Cytogenetics: 1q23.3

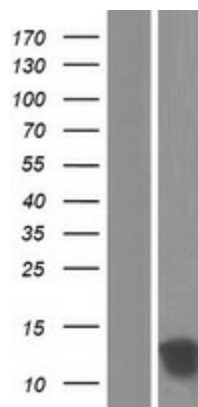
MW: 11.8 kDa

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]

Product images:



Circular map for RC225033



Western blot validation of overexpression lysate (Cat# [LY426391]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC225033 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).