

## Product datasheet for **RG225945**

### TRP2 (DCT) (NM\_001129889) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TRP2 (DCT) (NM_001129889) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DCT
Synonyms:	TRP-2; TYRP2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG225945 representing NM\_001129889  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGAGCCCCCTTTGGTGGGGTTTCTGCTCAGTTGCTTGGGCTGCAAAATCCTGCCAGGAGCCAGGGTC  
 AGTCCCCCGAGTCTGCATGACGGTGGACAGCCTAGTGAACAAGGAGTGCTGCCACGCCTGGGTGCAGA  
 GTCGGCCAATGTCTGTGGCTCTCAGCAAGGCCGGGGCAGTGCACAGAGGTGCGAGCCGACACAAGGCC  
 TGGAGTGGTCCCTACATCCTACGAAACCAGGATGACCGTGAGCTGTGGCCAAGAAAATTCTCCACCGGA  
 CCTGCAAGTGCACAGGAACTTTGCCGGCTATAATTGTGGAGACTGCAAGTTTGGCTGGACCGGTCCCAA  
 CTGCGAGCGGAAGAAACCACCAGTGATTCGGCAGAACATCCATTCCTTGTAGTCTCAGGAAAAGAGAGCAG  
 TTCTTGGGCGCCTTAGATCTCGGAAGAAGAGAGTACACCCCGACTACGTGATCACCACACAACACTGGC  
 TGGGCTGCTTGGGCCAATGGAACCCAGCCGAGTTTGGCAACTGCAGTGTATGATTTTTTTGTGTG  
 GCTCCATTATTCTGTAGAGATACATTATTAGGACCAGGACGCCCTACAGGGCCATAGATTTCTCA  
 CATCAAGGACCTGCATTTGTTACCTGGCACCGGTACCATTTGTTGTGTCTGGAAAAGAGATCTCCAGCGAC  
 TCATTGGCAATGAGTCTTTTGTCTTGCCTACTGGAACCTTGGCACTGGGAGGAACGAGTGTGATGTGTG  
 TACAGACCAGCTGTTGGGGCAGCGAGACCAGACGATCCGACTCTGATTAGTCGGAACCTCAAGATTCTCC  
 AGCTGGGAAACTGTCTGTGATAGCTTGGATGACTACAACCACCTGGTCACCTTGTGCAATGGAACCTATG  
 AAGTTTGTCTGAGAAGAAATCAAATGGGAAGAAACAGCATGAAATTGCCAACCTAAAAGACATACGAGA  
 TTGCCTGTCTCCAGAAGTTTGACAATCCTCCCTTCTCCAGAAGTCTACCTTCAGTTTCAGGAATGCT  
 TTGGAAGGTTTGATAAAGCAGATGGGACTCTGGATTCTCAAGTATGAGCCTTCATAATTTGGTTTCATT  
 CCTTCTGAACGGGACAAACGCTTTGCCACATTCAGCCGCAATGATCCCATTTTTGTGGTGATTTCTAA  
 TGGTTTTGCTTTACAATGCTACAACAAACATCCTTGAACATGTAAGAAAAGAGAAAAGCGACCAAGGAACCT  
 CCTCCCTGCATGTGCTGGTTCTTATTCTTTACTGATGCCATCTTGTGATGAGTGGATGAAAAGATTTA  
 ATCCTCTGCAGATGCCTGGCCTCAGGAGCTGGCCCTATTGGTCACAATCGGATGTACAACATGGTTCC  
 TTTCTCCCTCCAGTGACTAATGAAGAAGTCTTTTAACTCAGACCAACTTGGCTACAGCTATGCCATC  
 GATCTGCCAGTTTCAGTTGAAGAACTCCAGTTGGCCACAACCTCTTAGTAGTCATGGGAACACTGG  
 TGGCTTTGGTTGGTCTTTTTGTGCTGTTGGCTTTCTTCAATATAGAAGACTTCGAAAAGGATATACACC  
 CCTAATGGAGACACATTTAAGCAGCAAGAGATACACAGAAGAAGCC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG225945 representing NM\_001129889  
 Red=Cloning site Green=Tags(s)

MSPLWWGFLLSCLGCKILPGAQQFPRVCMVDSL VNKECCPRLGAESANVCGSQQGRGQCTEVRADTRP  
 WSGPYILRNQDDRELWPRKFFHRTCKCTGNFAGYNGDCKFGWTGPNCKERKPPVIRQNIHSLSPQEREQ  
 FLGALDLAKKRVHPDYVITTHWLGLLGPNGTQPQFANCSVYDFVWLHYYSVRDTHLGPGRPYRAIDFS  
 HQGPAFVTHRYHLLCLERDLQRLIGNESFALPYWNFATGRNECDVCTDQLFGAARPDDPTLISRNSRFS  
 SWETVCDLDDYHNLVTLNNGTYEGLLRNQMGGRNSMKLPTLKDIRDCLSLQKFDNPPFFQNSTFSFRNA  
 LEGFDKADGTLDSQVMSLHNLVHSFLNGTNALPHSAANDPIFVVISNRLLYNATTNILEHVRKEKATKEL  
 PSLHVLVLHSFTDAIFDEWMKRFNPPADAWPQELAPIGHNRMVMVFPFPPVTNEELFLTSDQLGYSYAI  
 DLPVSVEETPGWPTLLVVMGTLVALVGLFVLLAFLQYRRLRKGYPMLMETHLSSKRYTEEA

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI



<b>ACCN:</b>	NM_001129889
<b>ORF Size:</b>	1656 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001129889.2</a> , <a href="#">NP_001123361.1</a>
<b>RefSeq Size:</b>	2403 bp
<b>RefSeq ORF:</b>	1659 bp
<b>Locus ID:</b>	1638
<b>UniProt ID:</b>	<a href="#">P40126</a>
<b>Cytogenetics:</b>	13q32.1
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Melanogenesis, Metabolic pathways, Tyrosine metabolism
<b>Gene Summary:</b>	Catalyzes the conversion of L-dopachrome into 5,6-dihydroxyindole-2-carboxylic acid (DHICA) (PubMed:8306979). Involved in regulating eumelanin and pheomelanin levels. [UniProtKB/Swiss-Prot Function]