

Product datasheet for **RG202777**

TDO2 (NM_005651) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TDO2 (NM_005651) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TDO2
Synonyms:	HYPTRP; TDO; TO; TPH2; TRPO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG202777 representing NM_005651 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGTGGGTGCCCATTTTTAGGAAACAACCTTTGGATATACTTTAAAAAACTCCCCGTAGAAGGCAGCG
AAGAAGACAAATCACAACTGGTGTGAATAGAGCCAGCAAAGGAGGTCTTATCTATGGAACTACCTGCA
TTTGGAAAAAGTTTTGAATGCACAAGAAGTCAAAGTAAAACAAAAGGAAATAAAATCCATGATGAACAT
CTTTTTATCATAACTCATCAAGCTTATGAACTCTGGTTAAGCAAATCCTCTGGGAGTTGGATTCTGTT
GAGAGATCTTTCAGAATGGCCATGTCAGAGATGAAAGGAACATGCTTAAGGTTGTTTCTCGGATGCACCG
AGTGTCAGTGATCCTGAACTGCTGGTGCAGCAGTTTTCCATTCTGGAGACGATGACAGCCTTGGACTTC
AATGACTTCAGAGAGTACTTATCTCCAGCATCAGGCTTCCAGAGTTTGAATTCCGACTATTAGAAAACA
AGATAGGTGTTCTTCAGAACATGAGAGTCCCTTATAACAGAAGACATTATCGTGATAACTTCAAAGGAGA
AGAAAAAGAACTGCTACTTAAATCTGAGCAGGAAAAGACACTTCTGGAATTAGTGGAGGCATGGCTGGAA
AGAACTCCAGGTTTAGAGCCACATGGATTTAATTCTGGGGAAAGCTTGAATAAATACACCAGAGGCC
TGAAGAGGAATTCATAAGGATTCAGGCTAAAGAAGAGTCTGAAGAAAAAGAGGAACAGGTGGCTGAATT
TCAGAAGCAAAAAGAGGTGCTACTGTCTTATTTGATGAGAAACGTCATGAACATCTCTTAGTAAAGGT
GAAAGACGGCTGCATACAGAGCACTTCAGGGAGCATTGATGATATATTTTTACAGGGAAGAGCCTAGGT
TCCAGGTGCCTTTTCAGTTGCTGACTTCTTATGGACATAGATTCACTGATGACCAAATGGAGATATAA
CCATGTGTGCATGGTGCACAGAATGCTGGCAGCAAAGCTGGCACCAGGTTTCTCAGGCTATCACTAC
CTGCGATCAACTGTGAGTGATAGGTACAAGGTATTTGTAGATTTATTTAATCTTTCAACATACCTGATTC
CCCGACTGGATACCGAAGATGAACCAACCATTACAAATTTCTATATACAGCAGAATACTGTGATAG
CTCCTACTTCAGCAGTGATGAATCAGAT

ACGGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG202777 representing NM_005651
 Red=Cloning site Green=Tags(s)

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MSGCPFLGNNFGYTFKKLPVEGSEEDKSQTGVNRASKGGLIYGNYLHLEKVLNAQELQSETKGNKIHDEH
LFIIITHQAYELWFKQILWELDSVREIFQNGHVRDERNMLKVVSRMHRVSVILKLLVQQFSILETMTALDF
NDFREYLSPASGFQSLQFRLLENKIGVLQNMVRPYNRRRHYRDNFKGEENELLLKSEQEKTLELVEAWLE
RTPGLEPHGFNFWGKLEKNITRGLLEEFIRIQAKEESEKEEQVAEFQKQKEVLLSLFDEKRHEHLLSKG
ERRLSYRALQGALMIYFYREEPFRFQVFPQLLTSMLDIDSLMTKWRYNHVCMVHRMLGSKAGTGGSSGYHY
LRSTVSDRYKVFVDL FNLSTYLIPRHWIPKMNP+TIHKFLYTAEYCDSSYFSSDES
```

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005651

ORF Size: 1218 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_005651.4](#)

RefSeq Size: 1712 bp

RefSeq ORF: 1221 bp

Locus ID: 6999

UniProt ID: [P48775](#)

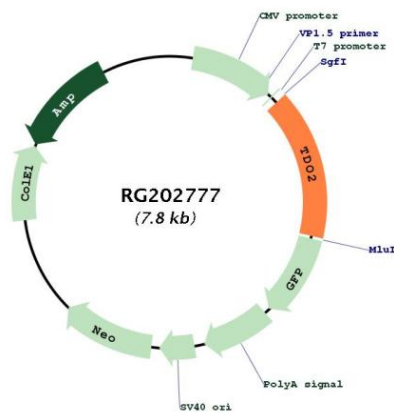
Cytogenetics: 4q32.1

Domains: Trp_dioxygenase

Protein Pathways: Metabolic pathways, Tryptophan metabolism

Gene Summary: This gene encodes a heme enzyme that plays a critical role in tryptophan metabolism by catalyzing the first and rate-limiting step of the kynurenine pathway. Increased activity of the encoded protein and subsequent kynurenine production may also play a role in cancer through the suppression of antitumor immune responses, and single nucleotide polymorphisms in this gene may be associated with autism. [provided by RefSeq, Feb 2012]

Product images:



Circular map for RG202777