

Product datasheet for **SC321049**

TDO2 (NM_005651) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TDO2 (NM_005651) Human Untagged Clone
Tag:	Tag Free
Symbol:	TDO2
Synonyms:	HYPTRP; TDO; TO; TPH2; TRPO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_005651.1
 AGGTCAATGATAGCATCTGCCTAGAGTCAAACCTCCGTGCTTCTCAGACAGTGCCTTTTC
 ACCATGAGTGGGTGCCATTTTTAGGAAACAACCTTTGGATATACTTTAAAAAATCCCC
 GTAGAAGGCAGCGAAGAAGACAAATCACAACTGGTGTGAATAGAGCCAGCAAAGGAGGT
 CTTATCTATGGGAACTACCTGCATTTGGAAAAAGTTTTGAATGCACAAGAACTGCAAAGT
 GAAACAAAAGGAAATAAAATCCATGATGAACATCTTTTTATCATAACTCATCAAGCTTAT
 GAACTCTGGTTTTAAGCAAATCCTCTGGGAGTTGGATTCTGTTTCGAGAGATCTTTTCAGAAT
 GGCCATGTCAGAGATGAAAGGAACATGCTTAAGGTTGTTTCTCGATGCACCGAGTGCA
 GTGATCCTGAAACTGCTGGTGCAGCAGTTTTCCATTCTGGAGACGATGACAGCCTTGGAC
 TTCAATGACTTCAGAGAGTACTTATCTCCAGCATCAGGCTTCCAGAGTTTGAATTCCGA
 CTATTAGAAAACAAGATAGGTGTTCTTCAGAACATGAGAGTCCCTTATAACAGAAGACAT
 TATCGTGATAACTTCAAAGGAGAAGAAAATGAACTGCTACTTAAATCTGAGCAGGAAAAG
 ACATTCTGGAATTAGTGGAGGCATGGCTGAAAGAACTCCAGGTTTAGAGCCACATGGA
 TTTAACTCTGGGAAAGCTTGAAAAAATATCACCAGAGGCCTGGAAGAGGAATTCATA
 AGGATTCAGGCTAAAGAAGAGTCTGAAGAAAAAGAGGAACAGGTGGCTGAATTTTACAAG
 CAAAAAGAGGTGCTACTGTCCTTATTTGATGAGAAACGTATGAACATCTCCTTAGTAAA
 GGTGAAAGACGGCTGTCATACAGAGCACTTCAGGGAGCATTGATGATATATTTTTACAGG
 GAAGAGCCTAGGTTCCAGGTGCCTTTTCAGTTGCTGACTTCTCTTATGGACATAGATTCA
 CTGATGACCAAATGGAGATATAACCATGTGTGCATGGTGCACAGAATGCTGGGCAGCAA
 GCTGGCACCGGTGGTTCCTCAGGCTATCACTACCTGCGATCAACTGTGAGTGATAGGTAC
 AAGGTATTTGTAGATTTATTTAATCTTTCAACATACCTGATTTCCCGACACTGGATACCG
 AAGATGAACCCAAACCATTACAAATTTCTATATACAGCAGAATACTGTGATAGCTCTAC
 TTCAGCAGTGATGAATCAGATTAATAATCGTCTGCAAAATCTATGAAGAATACTGGTTTTCA
 CAGCCTATTTTTATTTTCTATGGATTTTATAAATACAGTTTGAATATATGCATGCATA
 TATTGTTTCAGCACACGATGCTCTGATTTAATTCTAGAAACAATTTGATTACCTCTTGT
 TGTGACAAGACTAAGCATTAAAGATGAGAAAGAATACATTTAAATAGTAACATTGTACATA
 GGGTGTTCCTATTAATAAATTCAGTTTCCCCTGAGACTTAATGTAACCACTTAATGTAA
 TCACTATCTCATTGTTTCATCTTATAAACTTGTAACTTCATCTATTTCAAATATTTTA
 TGCAGTACATTATATTCTGTACAAAGGCTTTCAAACAAAATTTTTAAATAATAAAG
 TATTAATCTCTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Restriction Sites: Please inquire

ACCN: NM_005651

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: [NM_005651.1](#), [NP_005642.1](#)

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]