

## Product datasheet for **SC313700**

### Tryptophan 5 hydroxylase 2 (TPH2) (NM\_173353) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Tryptophan 5 hydroxylase 2 (TPH2) (NM_173353) Human Untagged Clone
Tag:	Tag Free
Symbol:	Tryptophan 5 hydroxylase 2
Synonyms:	ADHD7; NTPH
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_173353 edited  
 ATGCAGCCAGCAATGATGATGTTTTCCAGTAAATACTGGGCAGGAGAGGGTTTTCCCTG  
 GATTCAGCAGTGCCCGAAGAGCATCAGCTACTTGGCAGCTCAACACTAAATAAACCTAAC  
 TCTGGCAAAAATGACGACAAAGGCAACAAGGGAAGCAGCAAAACGTGAAGCTGCTACCGAA  
 AGTGGCAAGACAGCAGTTGTTTTCTCCTTGAAGAATGAAGTTGGTGGATTGGTAAAAGCA  
 CTGAGGCTCTTTTCAGGAAAAACGTGTCAACATGGTTCATATTGAATCCAGGAAATCTCGG  
 CGAAGAAGTTCTGAGGTTGAAATCTTTGTGGACTGTGAGTGTGGGAAAACAGAATTCAAT  
 GAGCTCATTGAGTTGCTGAAATTTCAAACCACTATTGTGACGCTGAATCCTCCAGAGAAC  
 ATTTGGACAGAGGAAGAAGAGCTAGAGGATGTGCCCTGGTTCCCTCGGAAGATCTCTGAG  
 TTAGACAAATGCTCTCACAGAGTTCTCATGTATGGTCTGAGCTTGATGCTGACCACCCA  
 GGATTTAAGGACAATGTCTATCGACAGAGAAGAAAGTATTTTGTGGATGTGGCCATGGGT  
 TATAAATATGGTCAGCCATTCCAGGGTGGAGTATACTGAAGAAGAACTAAAACCTGG  
 GGTGTTGTATTCCGGGAGCTCTCCAACTCTATCCCACTCATGCTTGCCGAGAGTATTTG  
 AAAAATCTCCCTGCTGACTAAATACTGTGGTACAGAGAGGACAATGTGCCTCAACTC  
 GAAGATGTCTCCATGTTTCTGAAAGAAAGGTCTGGCTTACGGTGAGGCCGGTGGCTGGA  
 TACCTGAGCCACGAGACTTTCTGGCAGGACTGGCCTACAGAGTGTCCACTGTACCCAG  
 TACATCCGGCATGGCTCAGATCCCCTCTACACCCCGGAACCAGACACATGCCATGAACTC  
 TTGGGACATGTTCCACTACTTGGGATCCTAAGTTTGTCTAGTTTTCACAAAGAAATAGGT  
 CTGGCCTCTCTGGGAGCATCAGATGAAGATGTTTCAGAACTAGCCACGTGCTATTTCTTC  
 ACAATCGAGTTTGGCCTTTGCAAGCAAGAAGGGCAACTGCGGGCTTATGGAGCAGGACTC  
 CTTTCCTCCATTGGAGAATTAAGCACGCCCTTTCTGACAAGGCATGTGTGAAAGCCTTT  
 GACCCAAAGACAATGCTTACAGGAATGCCTTATCACCACCTTCCAGGAAGCCTACTTT  
 GTTTCAGAAAGTTTTGAAGAAGCCAAAGAAAAGATGAGGGACTTTGCAAAGTCAATTACC  
 CGTCCCTTCTCAGTATACTTCAATCCCTACACACAGAGTATTGAAATCTGAAAGACACC  
 AGAAGTATTGAAATGTGGTGCAGGACCTTCGACGCGACTTGAATACAGTGTGTGATGCT  
 TTAACAAAATGAACCAATATCTGGGGATTGA



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<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_173353
<b>Insert Size:</b>	3000 bp
<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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></p>
<b>OTI Annotation:</b>	The ORF of this clone has been fully sequenced and found to be a perfect match to NM_173353.2.
<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_173353.2</a> , <a href="#">NP_775489.2</a>
<b>RefSeq Size:</b>	2350 bp
<b>RefSeq ORF:</b>	1473 bp
<b>Locus ID:</b>	121278
<b>UniProt ID:</b>	<a href="#">Q8IWU9</a>
<b>Cytogenetics:</b>	12q21.1
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Metabolic pathways, Tryptophan metabolism

**Gene Summary:**

This gene encodes a member of the pterin-dependent aromatic acid hydroxylase family. The encoded protein catalyzes the first and rate limiting step in the biosynthesis of serotonin, an important hormone and neurotransmitter. Mutations in this gene may be associated with psychiatric diseases such as bipolar affective disorder and major depression. [provided by RefSeq, Feb 2016]