

Product datasheet for **MG207141**

Tph1 (NM_009414) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tph1 (NM_009414) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Tph1
Synonyms:	Tph
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG207141 representing NM_009414
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGATTGAAGACAACAAGGAGAACAAGAGAACAAGACCATTCTCCGAAAGAGGGAGAGTGACTCTCA
 TCTTCTCCTTGGAGAATGAAGTCGGAGGACTCATAAAAGTGCTGAAAATCTTCCAGGAGAATCATGTGAG
 CCTGTTACACATCGAGTCCCGGAAATCAAAGCAAAGAAATTCAGAATTTGAGATATTTGTTGACTGCGAC
 ATCAGCCGAGAACAGTTGAATGACATCTTCCCCCTGCTGAAGTCGCACGCCACCGTCTCTCGGTGGACT
 CGCCCGATCAGCTCACTGCGAAGGAAGACGTTATGGAGACTGTCCCTTGGTTTCCAAAGAAGATTTCTGA
 CCTGGACTTCTGCGCCAACAGAGTGCTGTTGTATGGATCCGAACCTTGACGCCGACCACCTGGCTTCAA
 GACAATGTCTATCGTAGAAGACGAAAGTATTTTCAGAGTTGGCTATGAACTACAAACATGGGGACCCCA
 TTCCCAAGATTGAATTCAGGAAGAAGAGATTAAGACCTGGGGGACCATCTTCCGAGAGCTAAACAACT
 CTACCCGACCCAGCCTGCAGGGAGTACCTCAGAAACCTCCCTTTGCTCTCAAAACTGTGGCTATCGG
 GAAGACAACATCCCGCAACTGGAGGATGTCTCCAACCTTTTAAAAGAACGCACTGGGTTTTCCATCCGTC
 CTGTGGCTGGTTACCTCTCACCGAGAGATTTTCTGTCCGGGTTAGCCTTTTCGAGTCTTTCAGTCACTCA
 GTATGTGAGACACAGTTCAGATCCCTCTACACTCCAGAGCCAGACACCTGCCATGAACTCCTAGGCCAC
 GTTCTCTCTTGGCTGAACCCAGTTTGTCAATTCTCCAAGAAATTGGCCTGGCTTCCCTTGGAGCTT
 CAGAGGAGACAGTTCAAAAAGTGGCAACGTGCTACTTTTTCACTGTGGAGTTTGGCTGTGCAACAAGA
 TGGACAGCTGAGAGTCTTGGGGCCGGCTGCTTTCTCCATCAGTGAACCTAAACATGCACTTTCTGGA
 CATGCCAAAGTCAAGCCCTTTGATCCCAAGATTGCCTGTAACAGGAATGTCTCATCAGAGCTTCCAGG
 ATGTCTACTTTGTATCTGAGAGCTTTGAAGATGCAAAGGAGAAGATGAGAGAATTTGCCAAGACCGTGAA
 GCGCCCGTTTGGACTGAAGTACAACCCGTACACACAGAGTGTTTCAGGTTCTCAGAGACACCAAGAGCATA
 ACTAGTGCCATGAATGAGTTGCGGTATGACCTTGATGTCATCAGTATGCCCTCGCTAGGGTCACCAGGT
 GGCCAGTG TG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG207141 representing NM_009414
 Red=Cloning site Green=Tags(s)

MIEDNKENKENDHSSERGRVTLIFSLENEVGGLIKVLKIFQENHVSLHIESRKSQRNSEFEIFVDCD
 ISREQLNDIFPLLKSHATVLSVDSPDQLTAKEDVMETVPWFPKISDLDFCANRVLLYGSELDADHPGFK
 DNVYRRRRKYFAELAMNYKHGDPKPKIEFTEEEIKTWGTFIFRELNKLYPTHACREYLRNPLLSKYCYR
 EDNIPQLEDVSNFLKERTGFSIRPVAGYLSRDFLSGLAFRVFHCTQYVRHSSDPLYPDPDTCHELLGH
 VPLLAEPSFAQFSQEI GLASLGASEETVQKLATCYFFTFVEFLCKQDQGLRVFGAGLLSSISELKHLSG
 HAKVKPFDPKIACKQECLITSFQDYVFVSESFEDAKEKMRFAKTVKRPFGLKYNPYTQSVQVLRDTKSI
 TSAMNELRYDLVDVSDALARVTRWPSV

TRTRPLE - GFP Tag - V

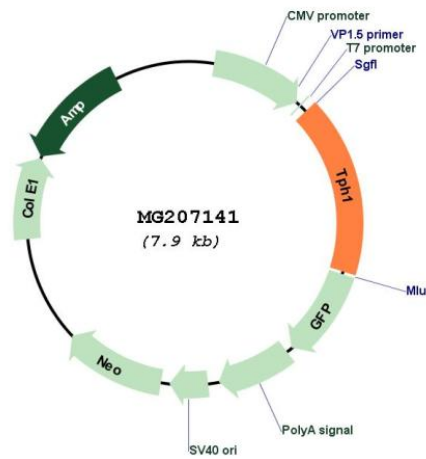
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_009414

ORF Size: 1341 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:	<ol style="list-style-type: none">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:	<u>NM_009414.3</u>
RefSeq Size:	2047 bp
RefSeq ORF:	1344 bp
Locus ID:	21990
UniProt ID:	<u>P17532</u>
Cytogenetics:	7 30.43 cM
Gene Summary:	This gene encodes a member of the bipterin-dependent aromatic amino acid hydroxylase family. The encoded protein is one of two tryptophan hydroxylase enzymes that catalyze the first and rate limiting step in the biosynthesis of the hormone and neurotransmitter, serotonin. This gene is expressed in peripheral organs, while tryptophan hydroxylase 2 is expressed in neurons. The encoded protein is involved in the development of hypoxia-induced elevations in pulmonary pressures and pulmonary vascular remodeling, and has also been implicated as a regulator of immune tolerance. Disruption of this gene is associated with cardiac dysfunction. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2013]