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Product datasheet for RC221254

Tryptophan Hydroxylase (TPH1) (NM_004179) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tryptophan Hydroxylase (TPH1) (NM_004179) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Tryptophan Hydroxylase
Synonyms:	TPRH; TRPH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

ORF Nucleotide Sequence:

>RC221254 representing NM_004179
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGATTGAAGACAATAAGGAGAACAAAGACCATTCCTTAGAAAGGGGAAGAGCAAGTCTCATTTTTTCCT
TAAAGAATGAAGTTGGAGGACTTATAAAAGCCCTGAAAATCTTTCAGGAGAAGCATGTGAATCTGTTACA
TATCGAGTCCCGAAAATCAAAAAGAAGAAACTCAGAATTTGAGATTTTTGTTGACTGTGACATCAACAGA
GAACAATTGAATGATATTTTTCATCTGCTGAAGTCTCATACCAATGTTCTCTCTGTGAATCTACCAGATA
ATTTTACTTTGAAGGAAGATGGTATGGAAACTGTTCCTTGGTTTCCAAAGAAGATTTCTGACCTGGACCA
TTGTGCCAACAGAGTTCTGATGTATGGATCTGAACTAGATGCAGACCATCCTGGCTTCAAAGACAATGTC
TACCGTAAACGTCGAAAGTATTTTGCGGACTTGGCTATGAACTATAAACATGGAGACCCCATTCCAAAGG
TTGAATTCACTGAAGAGGAGATTAAGACCTGGGGAACCGTATTCCAAGAGCTCAACAAACTCTACCCAAC
CCATGCTTGCAGAGAGTATCTCAAAAACTTACCTTTGCTTTCTAAATATTGTGGATATCGGGAGGATAAT
ATCCCACAATTGGAAGATGTCTCCAACTTTTTAAAAGAGCGTACAGGTTTTTCCATCCGTCCTGTGGCTG
GTTACTTATCACCAAGAGATTTCTTATCAGGTTTAGCCTTTCGAGTTTTTCACTGCACTCAATATGTGAG
ACACAGTTCAGATCCCTTCTATACCCCAGAGCCAGATACCTGCCATGAACTCTTAGGTCATGTCCCGCTT
TTGGCTGAACCTAGTTTTGCCCAATTCTCCCAAGAAATTGGCTTGGCTTCTCTTGGCGCTTCAGAGGAGG
CTGTTCAAAAACTGGCAACGTGCTACTTTTTCACTGTGGAGTTTGGTCTATGTAAACAAGATGGACAGCT
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GTAAAGCCCTTTGATCCCAAGATTACCTGCAAACAGGAATGTCTTATCACAACTTTTCAAGATGTCTACT
TTGTATCTGAAAGTTTTGAAGATGCAAAGGAGAAGATGAGAGAATTTACCAAAACAATTAAGCGTCCATT
TGGAGTGAAGTATAATCCATATACACGGAGTATTCAGATCCTGAAAGACACCAAGAGCATAACCAGTGCC
ATGAATGAGCTGCAGCATGATCTCGATGTTGTCAGTGATGCCCTTGCTAAGGTCAGCAGGAAGCCGAGTA
TC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC221254 representing NM_004179
Red=Cloning site Green=Tags(s)

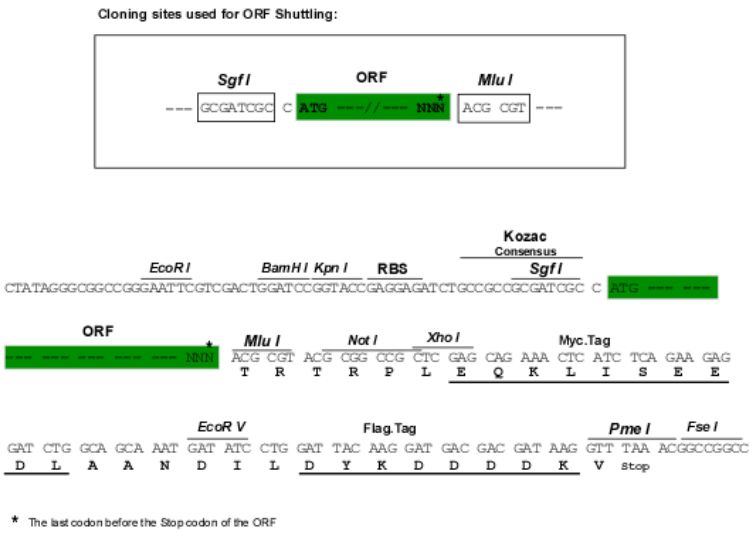
MIEDNKENKDHSLERGRASLIFSLKNEVGGLIKALKIFQEKHVNLLHIESRKSKRRNSEFEIFVDCDINR
EQLNDIFHLLKSHTNVLSVNLPDNFTLKEDGMETVPWFPKKISDLDHCANRVLMYGSELDADHPGFKDNV
YRKRRKYFADLAMNYKHGDPIPKVEFTEEEIKTWGTVFQELNKLYPTHACREYLKNLPLLSKYCGYREDN
IPQLEDVSNFLKERTGFSIRPVAGYLSPRDFLSGLAFRVFHCTQYVRHSSDPFYTPEPDTCHELLGHVPL
LAEPSFAQFSQEIGLASLGASEEAVQKLATCYFFTVEFGLCKQDGQLRVFGAGLLSSISELKHALSGHAK
VKPFDPKITCKQECLITTFQDVYFVSESFEDAKEKMREFTKTIKRPFGVKYNPYTRSIQILKDTKSITSA
MNELQHDLDVVSDALAKVSRKPSI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6159_f04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004179

ORF Size: 1332 bp

OTI Disclaimer: 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 custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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

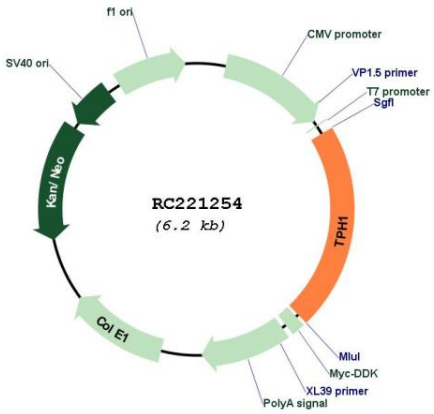
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

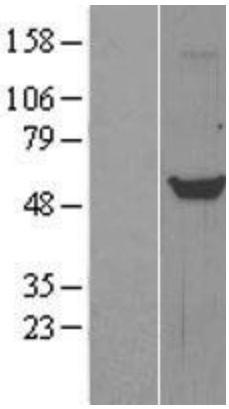
Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid 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_004179.3
RefSeq Size:	1335 bp
RefSeq ORF:	1335 bp
Locus ID:	7166
UniProt ID:	P17752
Cytogenetics:	11p15.1
Domains:	biopterin_H, ACT
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Tryptophan metabolism
MW:	50.8 kDa
Gene Summary:	This gene encodes a member of the aromatic amino 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 have been associated with an elevated risk for a variety of diseases and disorders, including schizophrenia, somatic anxiety, anger-related traits, bipolar disorder, suicidal behavior, addictions, and others.[provided by RefSeq, Apr 2009]

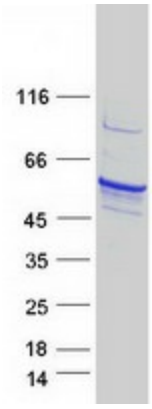
Product images:



Circular map for RC221254



Western blot validation of overexpression lysate (Cat# [LY401344]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221254 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TPH1 protein (Cat# [TP321254]). The protein was produced from HEK293T cells transfected with TPH1 cDNA clone (Cat# RC221254) using MegaTran 2.0 (Cat# [TT210002]).