

Product datasheet for **RG212560**

Tyrosine Hydroxylase (TH) (NM_199293) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tyrosine Hydroxylase (TH) (NM_199293) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Tyrosine Hydroxylase
Synonyms:	DYT5b; DYT14; TYH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG212560 representing NM_199293
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCACCCCGACGCCACCACGCCACAGGCCAAGGGCTTCGCGAGGGCCGTGTCTGAGCTGGACGCCA
 AGCAGGCAGAGGCCATCATGGGGCCCCGGGGCCAGCCTCACAGGCTCTCCGTGGCCTGGAACTGCAGC
 CCCAGCTGCATCCTACACCCCCACCCAAAGTCCCGCGGTTTCATTGGGCGCAGGCAGAGCCTCATCGAG
 GACGCCGCAAGGAGCGGGAGGCGGGTGGCAGCAGCGCCGCTGCAGTCCCCTCGAGCCCGGGGACC
 CCCTGGAGGCTGTGGCCTTTGAGGAGAAGGAGGGGAAGGCCGTGCTAAACCTGCTCTTCTCCCGAGGGC
 CACCAAGCCCTCGGCGTGTCCGAGCTGTGAAGGTGTTTGAACGTTTGAAGCCAAAATCCACCATCTA
 GAGACCCGGCCCGCCAGAGGCCGCGAGCTGGGGCCCCACCTGGAGTACTTCGTGCGCCTCGAGGTGC
 GCCGAGGGGACCTGGCCGCCCTGCTCAGTGGTGTGCGCCAGGTGTCAGAGGACGTGCGCAGCCCCGGG
 GCCAAGTCCCCTGGTCCCAAGAAAAGTGTGAGAGTGGACAAGTGTACATCACCTGGTACCAAGTTC
 GACCCTGACCTGGACTTGGACCACCCGGGCTTCTCGGACCAGGTGTACCGCCAGCGCAGGAAGCTGATTG
 CTGAGATCGCCTTCCAGTACAGGCACGGCGACCCGATTCCCCGTGTGGAGTACACCGCCGAGGAGATTGC
 CACCTGGAAGGAGGTCTACACCACGCTGAAGGGCTCTACGCCACGCACGCCCTGCGGGGAGCACCTGGAG
 GCCTTTGCTTTGCTGGAGCGCTTACGCGCTACCGGAAGACAATATCCCCAGCTGGAGGACGTCTCCC
 GCTTCTGAAGGAGCGCACGGGCTTCCAGCTGCGGCTGTGGCCGGCCTGCTGTCCGCCCCGGGACTTCT
 GGCCAGCTGGCCTTCCGCGTGTCCAGTGCACCCAGTATATCCGCCACGCGTCTCGCCATGCACTCC
 CCTGAGCCGACTGCTGCCACGAGCTGCTGGGGCAGTGGCCATGCTGGCCGACCGCACCTTCGCGCAGT
 TCTCGCAGGACATTGGCCTGGCTCCCTGGGGCCTCGGATGAGGAAATGAGAAGCTGCCACGCTGTC
 ATGGTTACGGTGGAGTTCGGGCTGTGTAAGCAGAACGGGGAGGTGAAGGCCTATGGTGGCCGGCTGCTG
 TCCTCCTACGGGAGCTCCTGCACTGCCTGTCTGAGGAGCCTGAGATTCCGGCCTTCGACCTGAGGCTG
 CGGCCGTGCAGCCCTACCAAGACCAGACGTACCAGTCACTTCTGAGGCTGAGGAGCTTCACTGACGC
 CAAGGACAAGCTCAGGAGCTATGCCTCACGCATCCAGCGCCCTTCTCCGTGAAGTTCGACCCGTACAGC
 CTGGCCATCGACGTGCTGGACAGCCCCAGGCCGTGCGGCGCTCCCTGGAGGGTGTCCAGGATGAGCTGG
 ACACCCTTGCCCATGCGCTGAGTGCCATTGCC

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

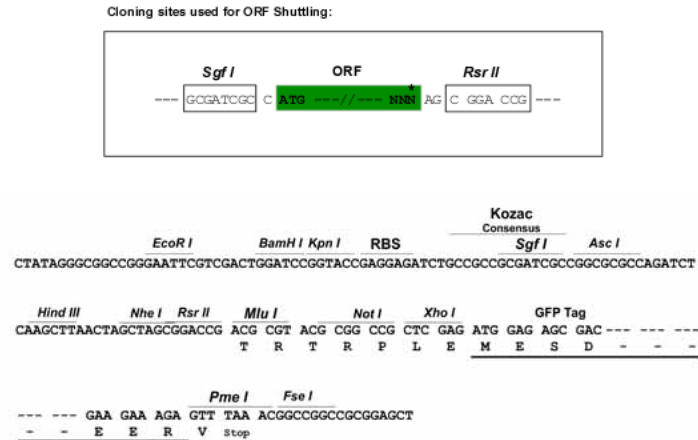
>RG212560 representing NM_199293
 Red=Cloning site Green=Tags(s)

MPTPDATTPQAKGFRRVSELDKQAEAIMGAPGSLTGSPWPGTAAAPAASYTTPRSPRFIGRRQSLIE
 DARKEREA AVAAAAAVPSEPGDPLEAVAFEEKEGKAVLNLLFSRATKPSALSRAVKVFETFEAKIHHL
 ETRPAQRPRAGGPHLEYFVRLEVRRLDALLSGVRQVSEDVRSAPGPKVPWFPRKVSELDKCHHLVTKF
 DPDLDLHPGFSQVYRQRRLIAEIAFQYRHGDP IPRVEYTAEEIATWKEVYTTLKGLYATHACGEHLE
 AFALLERFSGYREDNIPQLEDVSRFLKERTGFQLRPVAGLLSARDFLASLAFRVFQCTQYIRHASSPMHS
 PEPDCHELLGHVPLADRTFAQFSQDIGLASLGASDEEIEKLSTLSWFTVEFLCKQNGEVKAYGAGLL
 SSYGELLHCLSEPEIRAFDPEAAAVQPYQDQTYQSVYFVSEFSDAKDKLRSYASRIQRPF SVKFDPYT
 LAIDVLDSPQAVRRSLEGVQDELDTLAHALSAIG

SGPTRRRLE - GFP Tag - V

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:


ACCN: NM_199293

ORF Size: 1572 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_199293.1](#), [NP_954987.1](#)

RefSeq Size: 1910 bp

RefSeq ORF: 1575 bp

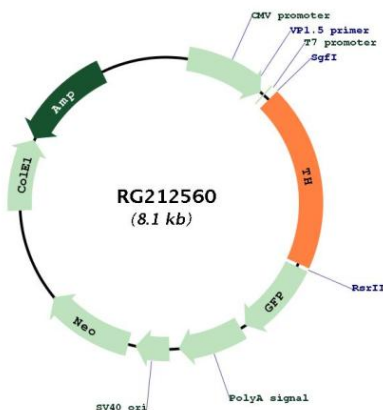
Locus ID: 7054

UniProt ID: [P07101](#)

Cytogenetics: 11p15.5

Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Parkinson's disease, Tyrosine metabolism
Gene Summary:	The protein encoded by this gene is involved in the conversion of tyrosine to dopamine. It is the rate-limiting enzyme in the synthesis of catecholamines, hence plays a key role in the physiology of adrenergic neurons. Mutations in this gene have been associated with autosomal recessive Segawa syndrome. Alternatively spliced transcript variants encoding different isoforms have been noted for this gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG212560