

Product datasheet for **RC214812**

Tyrosine Hydroxylase (TH) (NM_199292) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tyrosine Hydroxylase (TH) (NM_199292) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Tyrosine Hydroxylase
Synonyms:	DYT5b; DYT14; TYH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC214812 representing NM_199292
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCACCCCGACGCCACCACGCCACAGGCCAAGGGCTTCCGCAGGGCCGTGTCTGAGCTGGACGCCA
 AGCAGGCAGAGGCCATCATGGTAAGAGGGCAGGGCGCCCCGGGGCCAGCCTCACAGGCTCTCCGTGGCC
 TGGAACTGCAGCCCCAGCTGCATCCTACACCCCAACCCAAAGGTCGCCGCGGTTCAATGGGCGCAGGCAG
 AGCCTCATCGAGGACGCCCGCAAGGAGCGGGAGGCGGGTGGCAGCAGCGGCCGCTGCAGTCCCCTCGG
 AGCCCCGGGACCCCTGGAGGCTGTGGCCTTTGAGGAGAAGGAGGGGAAGGCCGTGCTAAACCTGCTCTT
 CTCCCCGAGGGCCACCAAGCCCTCGGCGCTGTCCCGAGCTGTGAAGGTGTTTGAAGACGTTTGAAGCCAAA
 ATCCACCATCTAGAGACCCGGCCCGCCAGAGGCCGCGAGCTGGGGGCCCCACCTGGAGTACTTCGTGC
 GCCTCGAGGTGCGCCGAGGGGACCTGGCCGCCCTGCTCAGTGGTGTGCGCCAGGTGTGAGGACGTGCG
 CAGCCCCGCGGGCCCAAGGTCCCTGGTTCCTCAAGAAAAGTGTGAGAGCTGGACAAGTGTATCACCTG
 GTACCAAAGTTCGACCCTGACCTGGACTTGGACCACCCGGGCTTCTCGGACCAGGTGTACCGCCAGCGCA
 GGAAGCTGATTGCTGAGATCGCCTTCCAGTACAGGCACGGCGACCCGATTCCCCGTGTGGAGTACACCGC
 CGAGGAGATTGCCACCTGGAAGGAGGTCTACACCACGCTGAAGGGCCTCTACGCCACGCACGCTGCGGG
 GAGCACCTGGAGGCCCTTGTCTTGTGGAGCGCTTACGCGGTACCGGGAAGACAATATCCCCAGCTGG
 AGGACGTCTCCCGCTTCTGAAGGAGCGCACGGGCTTCCAGTGCAGCCAGTATATCCGCCACGCGTCTCG
 CCGGACTTCTGGCCAGCCTGGCCTCCGCGTGTCCAGTGCACCCAGTATATCCGCCACGCGTCTCG
 CCCATGCACTCCCTGAGCCGGACTGCTGCCACGAGCTGCTGGGGCACGTGCCATGCTGGCCGACCGCA
 CCTTCGCGCAGTTCTCGCAGGACATTGGCCTGGCCTCCCTGGGGCCCTCGGATGAGGAAATTGAGAAGCT
 GTCCACGCTGTAAGTTCACGGTGGAGTTCGGGCTGTGTAAAGCAGAACGGGGAGGTGAAGGCCTATGGT
 GCCGGGCTGTGTCTCTACGGGGAGCTCCTGCACTGCCTGTCTGAGGAGCCTGAGATTCGGGCCCTTCG
 ACCCTGAGGCTGCGGCCGTGCAGCCCTACCAAGACCAGACGTACCAGTCACTTCTGCTGTGAGAG
 CTTCAAGTACGCCAAGGACAAGCTCAGGAGCTATGCCTCACGCATCCAGCGCCCCCTTCTCCGTGAAGTTC
 GACCCGTACAGCTGGCCATCGACGTGCTGGACAGCCCCAGGCCGTGCGGCGCTCCCTGGAGGGTGTCC
 AGGATGAGCTGGACACCCTTGCCATGCGCTGAGTGCCATTGGC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC214812 representing NM_199292
 Red=Cloning site Green=Tags(s)

MPTPDATTPQAKGFRRVSELDKQAEAIMVRQGAPGSLTGSPWPGTAAAPAASYTPRSPRFIGRRQ
 SLIEDARKEREA AVAAAAAVPSEPGDPLEAVAFEEKEGKAVL NLLFSRATKPSALSRVAVFETFEAK
 IHHLETRPAQRPRAGGPHLEYFVRLEVRRLAALLSGVRQVSEDRSPAGPKVPWFPRKVSSELDKCHHL
 VTKFDPDLDLDPGFSQVYRQRRLIAEIAFQYRHGDI PRVEYTAEEIATWKEVYTTLGLYATHACG
 EHLEAFALLERFSGYREDNIPQLEDVSRFLKERTGFQLRPVAGLLSARDFLASLAFRVFQCTQYIRHASS
 PMHSPEPDCHELLGHVPMLADRTFAQFSQDIGLASLGASDEEIEKLSTLYWFTVEFGLCKQNGEVKAYG
 AGLLSSYGELLHCLSEPEIRAFDPEAAAVQPYQDQTYQSVYFVSEFSDAKDCLRYSASRIQRPFVSKF
 DPYTLAIDVLDSPQAVRRSLEGVQDELDTLAHALSAIG

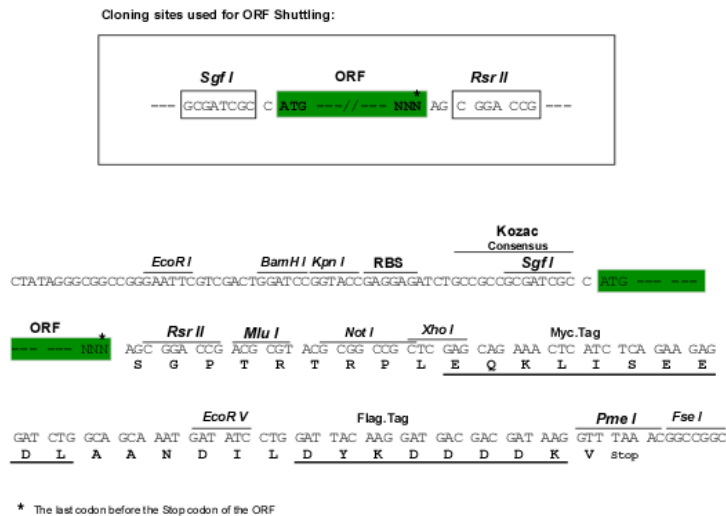
SGPTRRRLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8065_f03.zip

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:


ACCN: NM_199292

ORF Size: 1584 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_199292.3](#)

RefSeq Size: 1921 bp

RefSeq ORF: 1587 bp

Locus ID: 7054

UniProt ID: [P07101](#)

Cytogenetics: 11p15.5

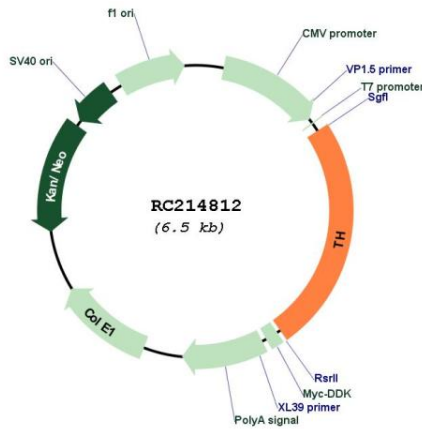
Protein Families: Druggable Genome

Protein Pathways: Metabolic pathways, Parkinson's disease, Tyrosine metabolism

MW: 58.4 kDa

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 RC214812