

## Product datasheet for **RG212355**

### Dopamine beta Hydroxylase (DBH) (NM\_000787) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Dopamine beta Hydroxylase (DBH) (NM_000787) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Dopamine beta Hydroxylase
Synonyms:	DBM; ORTHYP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>RG212355 representing NM\_000787  
Red=Cloning site Blue=ORF Green=Tags(s)

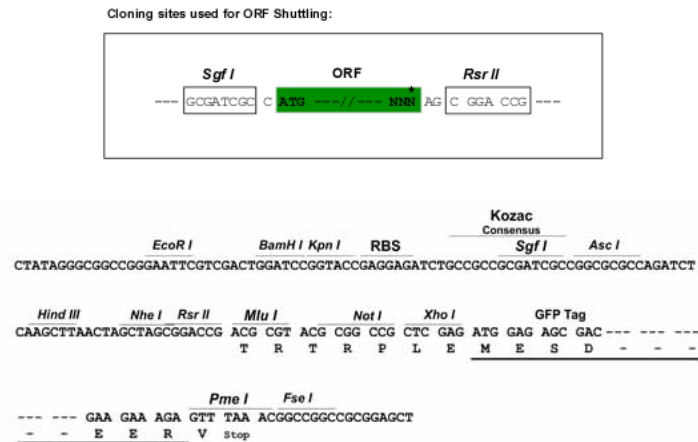
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GCC**CGGATCGCC**

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GCAGTTCACCTCTGTTCCCTGGAACCTTCAACCGGACGACTGAAGGCCCTGTACAGCTTCGCGCCC  
ATCTCCATGCACTGCAACAAGTCTCAGCCGTCGCTTCCAGGGTGAATGGAACCTGCAGCCCTGCCCA  
AGGTCATCTCCACTGGAAGAGCCACCCACAGTGGCCACCAGCCAGGGCCGAAGCCCTGCTGGCCC  
CACCGTTGTCAGCATTGGTGGGGCAAAGGC

AG**CGGACCG**ACGCGT**ACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

Restriction Sites:

Sgfl-RsrII

**Cloning Scheme:**


**ACCN:** NM\_000787

**ORF Size:** 1851 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\\_000787.4](#)

**RefSeq Size:** 2812 bp

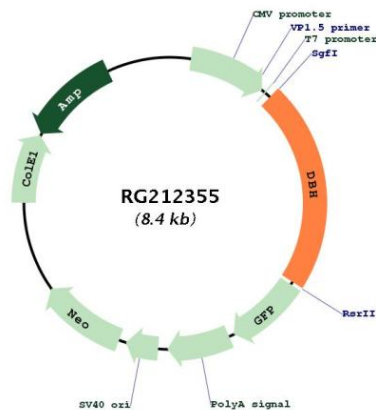
**RefSeq ORF:** 1854 bp

**Locus ID:** 1621

**UniProt ID:** [P09172](#)

<b>Cytogenetics:</b>	9q34.2
<b>Protein Families:</b>	Druggable Genome, Secreted Protein, Transmembrane
<b>Protein Pathways:</b>	Metabolic pathways, Tyrosine metabolism
<b>Gene Summary:</b>	The protein encoded by this gene is an oxidoreductase belonging to the copper type II, ascorbate-dependent monooxygenase family. The encoded protein, expressed in neurosecretory vesicles and chromaffin granules of the adrenal medulla, catalyzes the conversion of dopamine to norepinephrine, which functions as both a hormone and as the main neurotransmitter of the sympathetic nervous system. The enzyme encoded by this gene exists in both soluble and membrane-bound forms, depending on the absence or presence, respectively, of a signal peptide. Mutations in this gene cause dopamine beta-hydroxylase deficiency in human patients, characterized by deficits in autonomic and cardiovascular function, including hypotension and ptosis. Polymorphisms in this gene may play a role in a variety of psychiatric disorders. [provided by RefSeq, Aug 2017]

**Product images:**



Circular map for RG212355