

## Product datasheet for **RC212882**

### BDNF (NM\_001709) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	BDNF (NM_001709) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	BDNF
Synonyms:	ANON2; BULN2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC212882 representing NM_001709 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGACCATCCTTTTCCTTACTATGGTTATTTCACTTTGGTTGCATGAAGGCTGCCCCATGAAAGAAG  
CAAACATCCGAGGACAAGGTGGCTTGGCCTACCCAGGTGTGCGGACCCATGGGACTCTGGAGAGCGTGAA  
TGGGCCAAGGCAGGTTCAAGAGGCTTGACATCATTGGCTGACACTTTGAAACACGTGATAGAAGAGCTG  
TTGGATGAGGACCAGAAAGTTCGGCCCAATGAAGAAAACAATAAGGACGCAGACTTGTACACGTCCAGGG  
TGATGCTCAGTAGTCAAGTGCCTTTGGAGCCTCCTCTTCTTTCTGCTGGAGGAATACAAAATTACCT  
AGATGCTGCAAACATGTCCATGAGGGTCCGGCGCCACTCTGACCCGCCCCGAGGGGAGCTGAGCGTG  
TGTGACAGTATTAGTGAGTGGGTAAACGGCGGCAGACAAAAGACTGCAGTGGACATGTCCGGCGGGACGG  
TCACAGTCCTTGAAGAGGTCCCTGTATCAAAGGCCAACTGAAGCAATACTTCTACGAGACCAAGTGCAA  
TCCCATGGGTTACACAAAAGAAGGCTGCAGGGCATAGACAAAAGGCATTGGAATCCCAGTGCCGAACT  
ACCCAGTCGTACGTGCGGGCCCTTACCATGGATAGCAAAAAGAGAATTGGCTGGCGATTACATAAGGATAG  
ACACTTCTGTGTATGTACATTGACCATTAAGGGGAAGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC212882 representing NM\_001709  
Red=Cloning site Green=Tags(s)

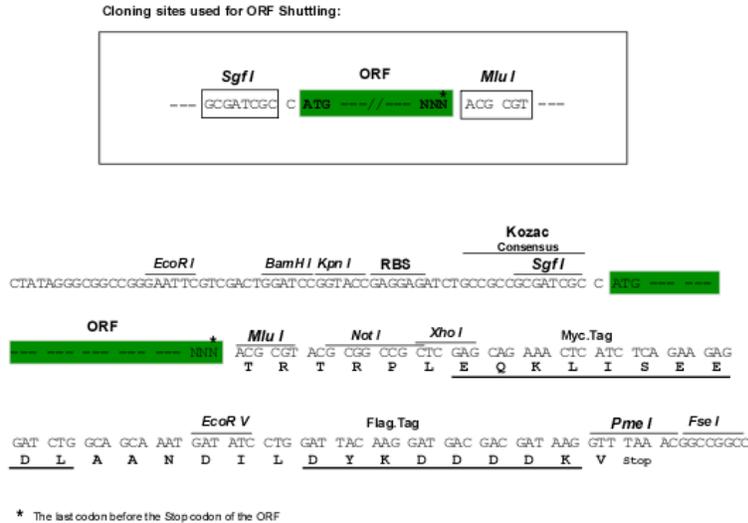
MTILFLTMVISYFGCMKAAPMKEANIRGQGGLAYPGVVRTHGTLESVNGPKAGSRGLTSLADTFEHVIEEL  
 LDEDQKVRPNEENNKDADLYTSRVMLSSQVPLEPPLLFLLEEYKNYLDAAANMSMRVRRHSDPARRGELSV  
 CDSISEWVTAADKKTAVDMSSGGT VTVLEKVPVSKGQLKQYFYETKCNPMGYTKEGCRGIDKRHWNSQCRT  
 TQSYVRALTMDSKKRIGWRFIRIDTSCVCTLTIKRGR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6116\\_a03.zip](https://cdn.origene.com/chromatograms/mk6116_a03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001709

**ORF Size:** 741 bp

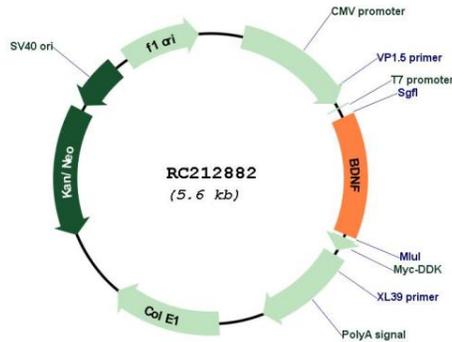
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of 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](mailto: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](#)

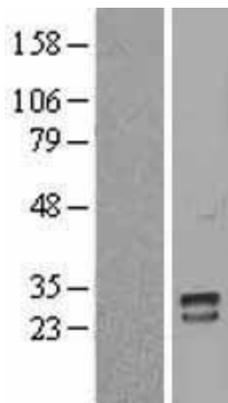
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_001709.5</u>
<b>RefSeq Size:</b>	3972 bp
<b>RefSeq ORF:</b>	744 bp
<b>Locus ID:</b>	627
<b>UniProt ID:</b>	<u>P23560</u>
<b>Cytogenetics:</b>	11p14.1
<b>Domains:</b>	NGF
<b>Protein Families:</b>	Adult stem cells, Druggable Genome, Embryonic stem cells, ES Cell Differentiation/IPS, Induced pluripotent stem cells, Secreted Protein, Transmembrane
<b>Protein Pathways:</b>	Huntington's disease, MAPK signaling pathway, Neurotrophin signaling pathway
<b>MW:</b>	27.82 kDa
<b>Gene Summary:</b>	This gene encodes a member of the nerve growth factor family of proteins. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed to generate the mature protein. Binding of this protein to its cognate receptor promotes neuronal survival in the adult brain. Expression of this gene is reduced in Alzheimer's, Parkinson's, and Huntington's disease patients. This gene may play a role in the regulation of the stress response and in the biology of mood disorders. [provided by RefSeq, Nov 2015]

Product images:



Circular map for RC212882



Western blot validation of overexpression lysate (Cat# [LY400640]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212882 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).