

## Product datasheet for **RC212722**

### **BDNF (NM\_170733) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** BDNF (NM\_170733) 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:** >RC212722 ORF sequence  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGACCATCCTTTTCCTTACTATGGTTATTTCACTTTGGTTGCATGAAGGCTGCCCCATGAAAGAAG  
CAAACATCCGAGGACAAGGTGGCTTGGCTACCCAGGTGTGCGGACCCATGGGACTCTGGAGAGCGTGAA  
TGGGCCAAGGCAGGTTCAAGAGGCTTGACATCATTGGCTGACACTTTGAAACACATGATAGAAGAGCTG  
TTGGATGAGGACCAGAAAGTTCGGCCCAATGAAGAAAACAATAAGGACGCAGACTTGTACACGTCCAGGG  
TGATGCTCAGTAGTCAAGTGCCTTTGGAGCCTCCTCTTCTTTCTGCTGGAGGAATACAAAATTACCT  
AGACGCTGCAAACATGTCCATGAGGGTCCGGCGCCACTCTGACCCGCCCCGAGGGGAGCTGAGCGTG  
TGTGACAGTATTAGTGAGTGGGTAAACGGCGGCAGACAAAAGACTGCAGTGGACATGTGGGGCGGGACGG  
TCACAGTCCTTGAAGAGGTCCCTGTATCAAAGGCCAACTGAAGCAATACTTCTACGAGACCAAGTGCAA  
TCCCATGGGTTACACAAAAGAAGGCTGCAGGGGCATAGACAAAAGGCATTGGAATCCCAGTGCCGAACT  
ACCCAGTCGTACGTGCGGGCCCTTACCATGGATAGCAAAAAGAGAATTGGCTGGCGATTACATAAGGATAG  
ACACTTCTGTGTATGTACATTGACCATTAAGGGGAAGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC212722 protein sequence  
 Red=Cloning site Green=Tags(s)

MTILFLTMVISYFGCMKAAPMKEANIRGQGGLAYPGVVRTHGTLESVNGPKAGSRGLTSLADTFEHMIEEL  
 LDEDQKVRPNEENNKDADLYTSRVMLSSQVPLEPPLLFLLEEYKNYLDAAANMSMRVRRHSDPARRGELSV  
 CDSISEWVTAADKKTAVDMSGGTVTVLEKVPVSKGQLKQYFYETKCNPMGYTKEGCRGIDKRHWNSQCRT  
 TQSYVRALTMSKKRIGWRFIRIDTSCVCTLTIKRGR

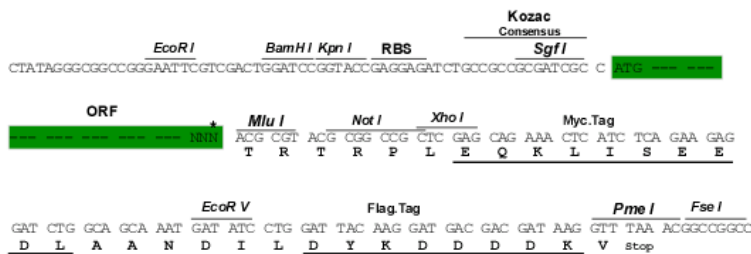
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6329\\_d02.zip](https://cdn.origene.com/chromatograms/mk6329_d02.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_170733

**ORF Size:** 741 bp

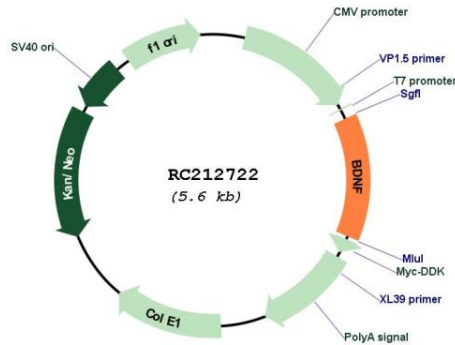
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of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

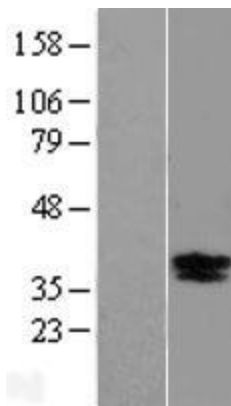
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<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>	<a href="#">NM_170733.3</a>
<b>RefSeq Size:</b>	4028 bp
<b>RefSeq ORF:</b>	744 bp
<b>Locus ID:</b>	627
<b>UniProt ID:</b>	<a href="#">P23560</a>
<b>Cytogenetics:</b>	11p14.1
<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>	27.9 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 RC212722



Western blot validation of overexpression lysate (Cat# [LY428353]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC227947] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).