

Product datasheet for **RC217021**

BDNF (NM_170731) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BDNF (NM_170731) 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:	>RC217021 representing NM_170731 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTTCCACCAGGTGAGAAGAGTGATGACCATCCTTTTCCTTACTATGGTTATTTTCATACTTTGGTTGCA
TGAAGGCTGCCCCATGAAAGAAGCAAACATCCGAGGACAAGGTGGCTTGGCCTACCCAGGTGTGCGGAC
CCATGGGACTCTGGAGAGCGTGAATGGGCCAAGGCAGGTTCAAGAGGCTTGACATCATTGGCTGACACT
TTCGAACACGTGATAGAAGAGCTGTTGGATGAGGACCAGAAAGTTCGGCCAATGAAGAAAACAATAAGG
ACGCAGACTTGTACACGTCCAGGGTGATGCTCAGTAGTCAAGTGCCTTTGGAGCCTCCTCTCTCTTTCT
GCTGGAGGAATACAAAATTACCTAGATGCTGCAACATGTCCATGAGGGTCCGGCGCCACTCTGACCCCT
GCCCGCCGAGGGGAGCTGAGCGTGTGTGACAGTATTAGTGAGTGGTAACGGCGGCAGACAAAAGACTG
CAGTGGACATGTCGGCGGGACGGTCACAGTCCTTGAAGGTCCTGTATCAAAGGCCAACTGAAGCA
ATACTTCTACGAGACCAAGTGAATCCCATGGGTTACACAAAAGAAGGCTGCAGGGGCATAGACAAAAGG
CATTGGAAGTCCCAGTGCCGAATACCCAGTCGTACGTGCGGGCCCTTACCATGGATAGCAAAAAGAGAA
TTGGCTGGCGATTATAAGGATAGACACTTCTTGATGTACATTGACCATTAAAGGGGAAGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC217021 representing NM_170731
 Red=Cloning site Green=Tags(s)

MFHQVRRVMTILFLTMVISYFGCMKAAPMKEANIRGQGGLAYPGVVRTHGTLESVNGPKAGSRGLTSLADT
 FEHVIEELLDEDQKVRPNEENNKDADLYTSRVMLSSQVPLEPPLLFLLEEYKNYLDAANMSMRVRRHSDP
 ARRGENLSVCDSEWVTAADKKTAVDMSGGTVTVLEKVPVSKGQLKQYFYETKCNPMGYTKEGCRGIDKR
 HWNSQCRRTTQSYVRALTMDSKKRIGWRFIRIDTSCVCTLTIKRGR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6115_d05.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_170731

ORF Size: 765 bp

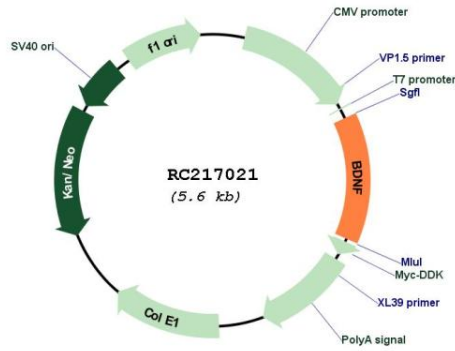
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

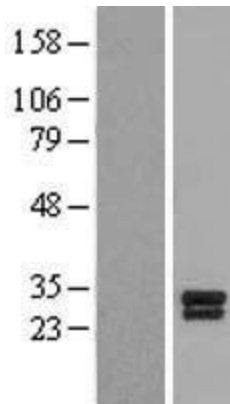
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_170731.5
RefSeq Size:	4044 bp
RefSeq ORF:	768 bp
Locus ID:	627
UniProt ID:	P23560
Cytogenetics:	11p14.1
Protein Families:	Adult stem cells, Druggable Genome, Embryonic stem cells, ES Cell Differentiation/IPS, Induced pluripotent stem cells, Secreted Protein, Transmembrane
Protein Pathways:	Huntington's disease, MAPK signaling pathway, Neurotrophin signaling pathway
MW:	25.7 kDa
Gene Summary:	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 RC217021



Western blot validation of overexpression lysate (Cat# [LY403537]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217021 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).