

Product datasheet for **SC108977**

BDNF (NM_170733) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: BDNF (NM_170733) Human Untagged Clone
Tag: Tag Free
Symbol: BDNF
Synonyms: ANON2; BULN2
Mammalian Cell Selection: None
Vector: pCMV6-XL5
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_170733 edited
 GAATTCGGCACGAGGATTACCTCCGCCATGCAATTTCCACTATCAATAATTTAACTTCTT
 TGCTGCAGAACGAAAGGAGTACATACCGGGCACCAAGACTCGCGCCCCCTCCCCCTTT
 AATTAAGCGAAGGGAACGTGAAAAATAATAGAGTGTGGGAGTTTTGGGGCCGAAGTCTT
 TCCCGGAGCAGCTGCCTTGATGGTTACTTTGACAAGTAGTACTGAAAAGTTCCACCAGG
 TGAGAAGAGTGATGACCATCCTTTTCTTACTATGGTTATTTTACTTTGGTTGCATGA
 AGGCTGCCCCATGAAAGAAGCAAACATCCGAGGACAAGGTGGCTTGGCCTACCCAGGTG
 TGCGGACCCATGGGACTCTGGAGAGCGTGAATGGGCCAAGGCAGGTTCAAGAGGCTTGA
 CATCATTGGCTGACACTTTCGAACACGTGATAGAAGAGCTGTTGGATGAGGACCAGAAAG
 TTCGGCCCAATGAAGAAAACAATAAGGACGCAGACTTGTACACGTCCAGGGTGATGCTCA
 GTAGTCAAGTGCCTTTGGAGCCTCCTCTTCTTCTGCTGGAGGAATACAAAAATTACC
 TAGATGCTGCAAACATGTCCATGAGGGTCCGGCGCCACTCTGACCCTGCCCGCCGAGGGG
 AGCTGAGCGTGTGTGACAGTATTAGTGAGTGGGTAACGGCGGCAGACAAAAGACTGCAG
 TGGACATGTGGGCGGGACGGTACAGTCTTAAAAAGGTCCTGTATCAAAAAGGCCAAC
 TGAAGCAATACTTCTACGAGACCAAGTGAATCCCATGGGTTACACAAAAGAAGGCTGCA
 GGGGCATAGACAAAAGGCATTGGAATCCCAAGTCCCAAGTACCCAGTCTGACGTCGGG
 CCCTTACCATGGATAGCAAAAAGAGAATTGGCTGGCGATTACATAAGGATAGACACTTCTT
 GTGTATGTACATTGACCATTAAGGGGAAGATAGTGGATTTATGTTGTATAGATTAGAT
 TATATTGAGACAAAATTATCTATTTGTATATATACATAACAGGGTAAATTATTCAGTTA
 AGAAAAATAATTTTATGAACTGCATGTATAAATGAAGTTTATACAGTACAGTGGTTCT
 ACAATCTATTTATTGGACATGTCCATGACCAGAAGGGAACAGTCATTTGCGCACAACTT
 AAAAAAGTCTGCATTACATTCTTGTATAATGTTGTGGTTTGTGCGGTTGCCAAGAAGTGA
 AAACATAAAAAAGTAAAAAAAATAATAAATTGCATGCTGCTTTAATTGTGAATTGAAAAA
 AAAAAAAAAAAAACTCGAC



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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_170733 unedited
 AAAACCCATTCCGCACGAGGATTACCTCCTCCATGCAATTTCCACTATCAATAATTTAAC
 TTCTTTGCTGCAGAACAGAAGGAGTACATACCGGGCACCAAAGACTCGCGCCCCCTCCC
 CCTTTAATTAAGCGAAGGGAACGTGAAAAATAATAGAGTGTGGGAGTTTTGGGGCTAA
 GTCNNTCCCGGAGCAGCTGCCTTGATGGTACTTTGACAAGTAGTACTGAAAAGTTCCA
 CCAGGTGAGAAGAGTGATGACCATCCTTTTCTTACTATGGTTATTTTACTTTGGTTG
 CATGAAGGCTGCCCCATGAAAGAAGCAAACATCCGAGGACAAGGTGGCTTGGCCTACCC
 AGGTGTGCGGACCCATGGGACTCTGGAGAGCGTGAATGGGCCAAGGCAGGTTCAAGAGG
 CTTGACATCATTGGCTGACACTTTCGAACACGTGATAGAAGAGCTGTTGGATGAGGACCA
 GAAAGTTCGGCCAATGAAGAAAACAATAAGGACGCAGACTTGTACACGTCCAGGGTGAT
 GCTCAGTAGTCAAGTGCCTTTGGAGCCTCCTTCTCTTTCTGCTGGAGGAATACAAAA
 TTACCTAGATGCTGCAAACATGTCCATGAGGGTCCGGCGCCACTCTGACCCTGCCCGCCG
 AGGGGAGCTGAGCGTGTGTGACAGTATTAGTGAGTGGGTAAACGGCGGCAGACANAAGACT
 GCAGTGGACATGTCGGGGGGACGGTACAGTCCCTTTGAAAGTCCCTGTATCAAAGGC
 CAACTGAAGCAATACTTCTACGAGACCAAGTGCCATCCCATGGGTACCAAAAAGAAGGCT
 GCGGGGCATAGACAAAAGCATTGGAACCTCCAGTGGCC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_170733 unedited
 CCCCCCATGNTTGNACCCGGCCGATTCTAGGATCGGTTTTTTTTTTTTTTTTTTTCAA
 TTCACAATTATATGCGCATGCAATTTATTATTTTTTTAACTTTTTATGTTTTCACTTCT
 TGGCAACGGCAACAAACCACAACATTATCAAGGAATGTAATGCAGACTTTTTAAGTTGTG
 CGCAAATGACTGTTTCCCTTCTGGTCATGGACATGTCCAATAAATAGATTGTAGAACCAC
 TGTACTGTATAAACTTCATTTATACATGCAGTTCATAAAATTATTTTTTCTTAACTGAA
 TAATTTACCCTGTTATGTATATACAAAATAGATAATTTTTGTCTCAATAAATCTAATC
 TATACAACATAAATCCACTATCTTCCCCTTTAATGGTCAATGTACATACACAAGAAGTG
 TCTATCCTTATGAATCGCCAGCCAATTCTTTTTTGTATCCATGGTAAGGGCCCGCAGC
 TACGACTGGGTAGTTCGGCACTGGGAGTCCAATGCCTTTTGTCTATGCCCTGCAGCCT
 TCTTTTGTGTAACCCATGGGATTGCACTTGGTCTCGTAAAAGTATTGCTTCAGTTGGCCT
 TTTGATACAGGGACCTTTTCAAGGACTGTGACCGTCCCGCCGACATGTCCACTGCAGTC
 TTTTGTCTGCCCGCTTACCCACTCACTAATACTGTACACACGCTCAGCTCCCCTCGG
 CGGGCAGGGTCAGAGTGGCGCCGACCCTCATGGACATGTTTGCAGCATCTAGGTAACCT
 TTGTATTCCTCCAGCAGAAAGAGAGCAGGAGGCTCCAAAGCACTTGACTACTGAGCATCA
 CCTGGACGTGTACAAGNTTGCCTCCTTAAATGTTTCTCATTG

Restriction Sites:

NotI-NotI

ACCN:

NM_170733

Insert Size:

1330 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 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](#)

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.
RefSeq:	<u>NM_170733.2</u> , <u>NP_733929.1</u>
RefSeq Size:	4016 bp
RefSeq ORF:	744 bp
Locus ID:	627
UniProt ID:	<u>P23560</u>
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
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (5), also known as IV, BDNF4, or 3-5, differs in the 5' UTR and represents use of an alternate promoter compared to variant 1. Variants 1, 2, 4, 5, and 7-16 encode the same isoform (a).</p>