

Product datasheet for **SC306691**

BDNF (NM_170734) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: BDNF (NM_170734) 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_170734 edited
ATGCAGAGCCGGGAAGAGGAATGGTTCCACCAGGTGAGAAGAGTGATGACCATCCTTTTC
CTTACTATGGTTATTTTCATACTTTGGTTGCATGAAGGCTGCCCCATGAAAGAAGCAAAC
ATCCGAGGACAAGGTGGCTTGGCTACCCAGGTGTGCGGACCCATGGGACTCTGGAGAGC
GTGAATGGGCCCAAGGCAGGTTCAAGAGGCTTGACATCATTGGCTGACACTTTTTCGAACAC
GTGATAGAAGAGCTGTTGGATGAGGACCAGAAAGTTCGGCCCAATGAAGAAAACAATAAG
GACGCAGACTTGTACACGTCCAGGGTGTGCTCAGTAGTCAAGTGCCTTTGGAGCCTCCT
CTTCTCTTTCTGCTGGAGGAATACAAAAATTACCTAGATGCTGCAAAACATGTCCATGAGG
GTCCGGCGCCACTCTGACCCTGCCCGCCGAGGGGAGCTGAGCGTGTGTGACAGTATTAGT
GAGTGGGTAACGGCGGCAGACAAAAAGACTGCAGTGGACATGTCGGGCGGGACGGTCACA
GTCCTTGAAGGTCCCTGTATCAAAAGGCCAACTGAAGCAATACTTCTACGAGACCAAG
TGCAATCCCATGGGTTACACAAAAGAAGGCTGCAGGGGCATAGACAAAAGGCATTGGAAC
TCCCAAGTCCCAACTACCCAGTCGTACGTGCGGGCCCTTACCATGGATAGCAAAAAGAGA
ATTGGCTGGCGATTTCATAAGGATAGACACTTCTTGTGTATGTACATTGACCATTAAGG
GGAAGATAGTGGATTTATGTTGTATAGATTAGATTATATTGAGACAAAAATTATCTATTT
GTATATACATAACAGGGTAAATTATTCAGTTAAGAAAAAATAATTTTATGAACTGCA
TGTATAAATGAAGTTTATACAGTACAGTGGTCTACAATCTATTTATTGGACATGCCAT
GACCAGAAGGGAAACAGTCATTTGCGCACAACTTAAAAAGTCTGCATTACATTCCTTGAT
AATGTTGTGGTTTGTGGCGTTGCCAAGAACTGAAAACATAAAAAAGTTAAAAAAAATAAT
AAATTGCATGCTGCTTTAATTGTGAATTGAAAAAAAAAAAAAAAAAAAA



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5' Read Nucleotide Sequence:	>OriGene 5' read for NM_170734 unedited GTTTCAGTTACATTTGTATACGACTCATATAGGCGGCCGCGNATTCATGCAGAGCCGGGA AGAGGAATGGTCCACCAGGTGAGAAGAGTGATGACCATCCTTTTCTTACTATGGTTAT TTCATACTTTGGTTGCATGAAGGCTGCCCCATGAAAGAAGCAAACATCCGAGGACAAGG TGGCTTGGCCTACCCAGGTGTGCGGACCCATGGGACTCTGGAGAGCGTGAATGGGCCAA GGCAGGTTCAAGAGGCTTGACATCATTGGCTGACACTTTTGAACACGTGATAGAAGAGCT GTTGGATGAGGACCAGAAAGTTTCGGCCCAATGAAGAAAACAATAAGGACGCAGACTTGTA CACGTCCAGGGTATGCTCAGTAGTCAAGTGCCTTTGGAGCCTCCTCTTCTTTCTGCT GGAGGAATACAAAAATTACCTAGATGCTGCAAACATGTCCATGAGGGTCCGGCGCCACTC TGACCCTGCCGCGGAGGGGAGCTGAGCGTGTGTGACAGTATTAGTGAGTGGTAACGGC GGCAGACAAAAAGACTGCAGTGGACATGTGGGCGGGACGGTCACAGTCTTGAAAAGGT CCCTGTATCAAAAGGCCAACTGAAGCAATACTTCTACGAGACCAAGTGAATCCCATGGG TTACACAAAAGAAAGCTGCAGGGGCATAGACAAAAGGCATTGGAATCCAGTCCCGAAC TACCCAGTCGTACGTGCGGGCCCTTACCATGGATAGCANNAAAGAAATTGGCTGGCGATTC ATAAGGATAGACACTTCTTGTGTATGTACATTGACCATTAAGGGGGAGATAGTGNATT ATGTN
3' Read Nucleotide Sequence:	>Forward primer walk for NM_170734 unedited GATCAGTAGGATTGTGNACCCTGTACTGTATAAACTTCATTTATACATGCAGTTCATAA AATATTTTTTTCTTAACTGAATAATTTACCCTGTTATGTATATATACAAATAGATAATTT TTGTCTCAATATAATCTAATCTATACAACATAAATCCACTATCTTCCCCTTTAATGGTC AATGTACATACACAAGAAGTGTCTATCCTTATGAATCGCCAGCCAATTCTTTTTTGCTA TCCATGGTAAGGGCCCGCACGTACGACTGGGTAGTTCGGCACTGGGAGTCCAATGCCTT TTGTCTATGCCCTGCAGCCTTCTTTTGTGTAACCCATGGGATTGCACCTGGTCTCGTAG AAGTATTGCTTCAGTTGGCCTTTTGATACAGGGACCTTTTCAAGGACTGTGACCGTCCCG CCCACATGTCCACTGCAGTCTTTTTGTCTGCCCGGTTACCCACTACTAATACTGTCA CACACGCTCAGTCCCCTCGGCGGGCAAGGTCAAAGTGGCGCCAGACCCCTCTGGACATG TTTGCAACATCTAAGAAATTTTTGAATCCCCCACCACAAAAAAGAAAAGCTCCAAAA GCATTTGACTACTGGACCACACCCTAGGACAGGTAAAAAGTCTGCCACCCTAATGGTTAT CTAACAAGGGACCCAAATTTTCTGGACCCCAACAAAAAACTCTTAGTATAAACGTTTA AAAAAAGGAGTAACCCCAATGGAGTCCAGACCTCATGGAAAACAGCCGTGGGGAGAAAAA TAAAGAAACACACAAAAACCAAAAAGAGACCCCAAAACGTGGTTAGAGAAAAAAACCC AAGGGACCGGAAAGGATACCCATAGTCTCAAGCGACACAAACCACAAAAGGCACACAAAA GAGAGGAGAACAACAGTAGAAANAAGAGAAGATGTAGGAAAAAAA
Restriction Sites:	Please inquire
ACCN:	NM_170734
Insert Size:	1100 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.
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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_170734.2](#), [NP_733930.1](#)

RefSeq Size: 3958 bp

RefSeq ORF: 789 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

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]

Transcript Variant: This variant (6), also known as VIIb, BDNF6B, or 4I-5, represents use of an alternate promoter and differs in the 5' UTR and 5' coding region, compared to variant 1. The resulting isoform (c) contains a longer N-terminus and lacks a predicted signal peptide compared to isoform a.