

## Product datasheet for **SC306690**

### BDNF (NM\_170731) Human Untagged Clone

#### Product data:

|                           |                                       |
|---------------------------|---------------------------------------|
| Product Type:             | Expression Plasmids                   |
| Product Name:             | BDNF (NM_170731) Human Untagged Clone |
| Tag:                      | Tag Free                              |
| Symbol:                   | BDNF                                  |
| Synonyms:                 | ANON2; BULN2                          |
| Mammalian Cell Selection: | None                                  |
| Vector:                   | <u><a href="#">pCMV6-XL5</a></u>      |
| E. coli Selection:        | Ampicillin (100 ug/mL)                |

**Fully Sequenced ORF:** >OriGene sequence for NM\_170731 edited  
AATGTTCCACCAGGTGAGAAGAGTGATGACCATCCTTTTCCTTACTATGGTTATTTTCATA  
CTTTGGTTGCATGAAGGCTGCCCCATGAAAGAAGCAAACATCCGAGGACAAGGTGGCTT  
GGCCTACCCAGGTGTGCGGACCCATGGGACTCTGGAGAGCGTGAATGGGCCCAAGGCAGG  
TTCAAGAGGCTTGACATCATTGGCTGACACTTTCGAACACGTGATAGAAGAGCTGTTGGA  
TGAGGACCAGAAAGTTCGGCCCAATGAAGAAAACAATAAGGACGCAGACTTGACACGTC  
CAGGGTGATGCTCAGTAGTCAAGTGCCTTTGGAGCCTCCTCTTCTTTCTGCTGGAGGA  
ATACAAAATTACCTAGATGCTGCAAACATGTCCATGAGGGTCCGGCGCCACTCTGACCC  
TGCCCGCCGAGGGGAGCTGAGCGTGTGTGACAGTATTAGTGAGTGGTAACGGCGGCAGA  
CAAAAAGACTGCAGTGGACATGTCGGGCGGACGGTCACAGTCCTTGAAAAGTCCCTGT  
ATCAAAAAGCCAACTGAAGCAATACTTCTACGAGACCAAGTGCAATCCCATGGGTTACAC  
AAAAGAAGGCTGCAGGGCATAGACAAAAGGCATTGGAACCTCCAGTGCCGAACTACCCA  
GTCGTACGTGCGGGCCCTTACCATGGATAGCAAAAAGAGAATTGGCTGGCGATTCAATAG  
GATAGACACTTCTGTGTATGTACATTGACCATTAAGGGAAGATAGTGGATTATGT  
TGTATAGATTAGATTATATTGAGACAAAATTATCTATTTGTATATACATAACAGGGT  
AAATTATTCAGTTAAGAAAAAATAATTTTATGAACTGCATGTATAAATGAAGTTTATAC  
AGTACAGTGGTTCTACAATCTATTTATTGGACATGTCCATGACCAGAAGGAAACAGTCA  
TTTGCCGCAACTTAAAAAGTCTGCATTACATTCCTTGATAATGTTGTGGTTTGTGGCCG  
TTGCCAAGAACTGAAAACATAAAAAGTTAAAAAAAATAAATTAATTCATGCTGCTTTAAT  
TGTGAATTGAAAAAAAAAAAAAAAAAACTCGAC



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|                                     |   |
|-------------------------------------|---|
| <b>5' Read Nucleotide Sequence:</b> | >OriGene 5' read for NM_170731 unedited<br>GTTCACAATTTGTATACGACTCACTATAGGGCGGCCGGAATTCGCACGAGAATGTTCCA<br>CCAGTGAGAAGAGTGATGACCATCCTTTTCTTACTATGGTTATTTTCATACTTTGGTTGC<br>ATGAAGGCTGCCCCATGAAAGAAGCAAACATCCGAGGACAAGGTGGCTTGGCCTACCCA<br>GGTGTGCGGACCCATGGGACTCTGGAGAGCGTGAATGGGCCAAGGCAGGTTCAAGAGGC<br>TTGACATCATTGGCTGACACTTTTGAACACGTGATAGAAGAGCTGTTGGATGAGGACCAG<br>AAAGTTCGGCCCAATGAAGAAAACAATAAGGACGCAGACTTGTACACGTCACAGGTTGATG<br>CTCAGTAGTCAAGTGCCTTTGGAGCCTCCTCTTCTTTCTGCTGGAGGAATACAAAAAT<br>TACCTAGATGCTGAAACATGTCCATGAGGGTCCGGCGCCACTCTGACCCTGCCCGCCA<br>GGGGAGCTGAGCGTGTGTGACAGTATTAGTGAGTGGGTAACGGCGGCAGACAAAAAGACT<br>GCAGTGGACATGTCGGGCGGGACGGTCACAGTCCTTGAAAAGGTCCTGTATCAAAGGC<br>CAACTGAAGCAATACTTCTACGAGACCAAGTCAATCCCATGGGTTACACAAAAGAANGC<br>TGCAGGGGCATAGACAAAAGGCATTGGAACCTCCAGTGCCGAACCTACCCAGTCGTACGTG<br>CGGGCCCTTACCATGGATAGCANNAAGAAATTGGCTGGCGATTATAANGATAGACTN<br>TCTTGTGTATGTACATTGACCATTAAGGGG  |
| <b>3' Read Nucleotide Sequence:</b> | >Forward primer walk for NM_170731 unedited<br>GCGGCATGCTTGACNTGTNGNANNCCCTGACTGTNATAAACTTCATTTATACATGCA<br>GTTCATAAAATATTTTTTCTTAACTGAATAATTTACCCTGTTATGTATATACAAAT<br>AGATAATTTTTGTCTCAATATAATCTAATCTATAACAATAAATCCACTATCTTCCCCTT<br>TTAATGGTCAATGTACATACACAAGAAGTGTCTATCCTTATGAATCGCCAGCCAATTCTC<br>TTTTGTCTATCCATGGTAAAGGGCCGCAGTACGACTGGGTAGTTCGGCACTGGGAGTTC<br>CAATGCCTTTTGTCTATGCCCTGCAGCCTTCTTTTGTGTAACCCATGGGATTGCACTTG<br>GTCTCGTAGAAGTATTGCTTCAGTTGGCCTTTTGATACAGGGACCTTTTCAAGGACTGTG<br>ACCGTCCC GCCGACATGTCCACTGCAGTCTTTTGTCTGCCGCCGTTACCCACTCACTA<br>TACTGTACACACGCTCAGTCCCCTCGGCGGGCAGGGTCAAAGTGGCGCCGGACCCCTC<br>AAGGACATGTTTGCAGCATCTAAGTAATTTTTGAATTCCCAACCAAAAAGAAAAAGAA<br>GCTCCAAGGCACCTTGACTACTGGACCATCAACCTGGACGTGGACAAGTCCAGCCCTCC<br>CTATTGTTTAAATAAATGGAACCAAAAATAATAGGAACCAACAACAAACCCTACAAACA<br>TCCCCCTCCAAAACAGTCAAGACCAATAAAGTAAAGAACACATAAAACCATGCCCTG<br>GGGACAATAACAAAACCAAGAAATCACAAGGGGACCCACACCTGCGGGTAGAGCA<br>AGACGCACCCGAGCCCGGAATAGTAAGAATTTATAAAGGAGGGAAAAGATAGAAAAC<br>GGCCAAGCTAAAGAAGATAACGAATGACGAGCCAGAAAGACCGAACGCCGTT |
| <b>Restriction Sites:</b>           | Please inquire  |
| <b>ACCN:</b>                        | NM_170731   |
| <b>Insert Size:</b>                 | 1200 bp   |
| <b>OTI Disclaimer:</b>              | 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).  |
| <b>OTI Annotation:</b>              | The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.   |
| <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).  |

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| <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_170731.3</a> , <a href="#">NP_733927.1</a>  |
| <b>RefSeq Size:</b>           | 4044 bp  |
| <b>RefSeq ORF:</b>            | 768 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>Gene Summary:</b>          | <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 (3), also known as I, BDNF1, or 1-5, represents use of an alternate promoter and differs in the 5' UTR and 5' coding region, compared to variant 1. The resulting isoform (b) contains a longer N-terminus compared to isoform a. This isoform (b) may undergo proteolytic processing similar to isoform a.</p> |