

## Product datasheet for **RC214061**

### **BACH2 (NM\_021813) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	BACH2 (NM_021813) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	BACH2
Synonyms:	BTBD25; IMD60
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC214061 representing NM\_021813  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGTCTGTGGATGAGAAGCCTGACTCCCCATGTATGTGTATGAGTCCACAGTCCACTGCACCAACATCC  
 TCCTGGGCTCAATGACCAGCGGAAAAAGGATATTCTCTGTGACGTGACTTTGATCGTGGAGAGGAAGGA  
 GTTCCGGGCCACCGGGCTGTGCTGGCCGCATGCAGTGAATATTTTTGGCAGGCGCTGGTTGGACAGACA  
 AAAAATGATTTGGTGGTCACTTGCCTGAGGAGGTACAGCCAGGGGCTTTGGGCCGCTGTTACAGTTTG  
 CCTACACTGCCAAGCTGTTACTCAGCAGAGAAAACATCCGCGAGGTATCCGCTGTGCTGAGTTCCTGCG  
 CATGCACAACCTGGAGGACTCCTGCTTCACTTCTGCAGACCCAGCTCCTGAACAGTGAAGGATGGCCTG  
 TTTGTGTGCCGAAGGATGCTGCGTGCCAGCGCCACACGAGGACTGCGAGAAGTCTGCAGGAGAGGAGG  
 AGGATGAAGAGGAGGAGACGATGGATTCAGAGACGGCCAAGATGGCTTGCCCGAGGACCAGATGCTTCC  
 AGAGCCCATCAGCTTTGAGGCCCGCCATCCCGTAGCAGAGAAGGAAGAAGCCCTGCTGCCCGAGCCT  
 GACGTGCCACAGACACCAAGGAGAGCTCAGAAAAGGACGCGTTAACGCAGTACCCAGATACAAGAAAT  
 ACCAGTTGCATGTACCAAGAATGTCTATAATGCATCATCACACAGTACCTCAGGTTTTGAAGCACATT  
 CCGGAAGATAACTTAGCAACAGCCTCAAGCCGGGGCTTGCCAGGGGGCAGATTAAGAGTGAAGCCGCC  
 AGTGAAGAGAATGAGGAAGAGAGCATCACGCTCTGCTGTCTGGAGATGAGCCTGACGCCAAGGACAGAG  
 CGGGGATGTGAGATGGACCGGAAACAGCCAGCCCTGCCCTACCCACGGCCCGAGCTGGGGCCGC  
 CTGCTGGAGAGATCCAGGAGCGTGGCCTCGCCCTCCTGCTTAAGGTCTCTGTTACAGATAACGAAAAGT  
 GTGGAGCTGTCTGGCCTGCCAGTACATCTCAGCAGCACTTTGCCAGGAGTCCAGCCTGCCCTTTTGACA  
 AGGGGATCACTCAGGGTGACCTTAAACTGACTACACCCCTTTACAGGGAATTATGGACAGCCCAAGT  
 GGGCCAGAAGGAGGTGTCCAACCTCACCATGGGTGCGCCCTCAGGGGGCCTGGGTTGGAGGCTCTCTGT  
 AAACAGGAGGAGAGCTGGACCGGAGGAGCGTGATCTTCTCCTCCAGCGCTTGACCAAGTGAAGACCT  
 CGGTGCATTCTTATTCTGGGGTGAAGCTTTGGACAAAGACCTCTCTGAGCCGGTGCCAAAGGGTCTGTG  
 GGTGGGAGCCGGCAGTCCCTCCAGCTCGCAGGCTACTCCACGGTGGGCTGATGGCCGACCACTTG  
 CCAGGAAGGATGCGGCCAACACCAGCTGCCCGGTGCAATCAAAGTCTGCCCTCGCTCACCCCTTG  
 AGACCAGGACCAGGACTCCAGCTCCTGCTTCTCTATTCTACGCGGAGGACGGGAGCGGGGGCTCACC  
 CTGCGACCTCCCTCTGTGAGTCTCCTCCTCGCCCTGTTCCAGGGAGCCAGATTCTTGCCACAGAA  
 CATCAGGAACCAGCCTGATGGGAGATGGAATGTACAACCAAGTCCGGCCCAAATTAATGTGAGCAGT  
 CTTATGGAACCAACTCCAGTGAAGATCCGGATCGTTCTCGGAAGCAGACAGTGAAGTCTGTCTGTGCA  
 GGACAGGGGCCAGGAGGTAAGAACTTCTTTTCTGTAGATCAAATCACAGATCTTCCAAGGAACGATTTT  
 CAGATGATGATTAATGACAAGCTAACCTCAGAACAGTTAGAGTTTATTATGATGTCCGACGGCGCA  
 GCAAGAACCGCATCGCGGCCAGCGCTGCCGAAAAGGAACTGGACTGTATTGAAATTTAGAATGTGA  
 AATCCGCAAAATGGTGTGTGAGAAAGAGAACTGTTGTGAGAGGAAATCAACTGAAAGCATGCATGGGG  
 GAACTGTTGGACAACCTTCTCCTGCTTTCCAGGAAGTTGCGGAGACATCCAGAGCCCCGAGCAGATCC  
 AGGCCCTGCATCGGTATTGCCCTGTCTCAGACCCATGGACTTGCCACGGCCTCCAGTATTAACCTG  
 GCCCTTGGGTGCTGAGCAGAACATTGCGGCCTCCAATGCGCAGTGGGGGAAAACGTGCCCTGCTGCTTG  
 GAGCCAGGCGCGGCTCCCCCGGACCCCTGGGCACCCAGCAACCTCCGAGAATTGTACCTTGGA  
 GGAGACTAGAAGGCACTGACCCGGAACTTCTCAGAGAGGAGCCTCCTTGAACCCAGGAGCCAAAC  
 AGTGACCGTGACTTCTGCCAGGAAATGACTGATAAGTGTACAACAGCAACAGCCAGGAAAGATTAT  
 ACC

AG**GACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC214061 representing NM\_021813  
 Red=Cloning site Green=Tags(s)

MSVDEKPDSPMYVYESTVHCTNILLGLNDQRKKDILCDVTLIVERKEFRAHRAVLAACSEYFWQALVGQT  
 KNDLVVSLPEEVTARGFGPLLQFAYTAKLLL SRENIREVIRCAEFLRMHNLEDSCFSFLQTLNSEDGL  
 FVCRKDAACQRPHEDCENSAGEEEDEEETMDSETAKMACPRDQMLPEPISFEAAAIPVAEKEEALLPEP  
 DVPTDTKESSEKDAL TQYPRYKQYLACTKNVYNASSHSTSGFASTFREDNSSNSLKPGLARGQIKSEPP  
 SEENEEESITLCLSGDEPDAKDRAGDVEMDRKQPSAPPTAPAGAACLERSRSVASPCLRSLFSITKS  
 VELSGLPSTSQQHFARSPACPFDKGITQGD LKTDYTPFTGNYGQPHVGQKEVSNFTMGSPLRGPGLEALC  
 KQEGELDRRSVIFSSSACDQVSTSVHSYSGVSSLDKDLSEVPVKGLWVGAGQSLPSSQAYSHGGLMADHL  
 PGRMRPNTSCPVPKVCPRSPLETRTRTSSSSSSSYAEDGGSPCSLPLCEFSPPSQGARFLATE  
 HQEPGLMGDGMYNQVRPQIKCEQSYGTNSSDESGSFEADSESCPVDGRGQEVKLPFPVDQITDLPRNDF  
 QMMIKMHKLTSEQLFIHDVRRRSKNRIAAQRCRKRKLDICQNLCEIRKLVCEKEKLLSERNLKACMG  
 ELLDNFSCLSQEVCARDIQSPEQIQALHRYCPVLRPMDLPTASSINPAPLGAEQNIAASQCAVGENVPCCL  
 EPGAAPPVWAPSNTSENCTSGRRLEGTDPGTF SERGPPEPRSQTVTVDFCQEMTDKCTTDEQPRKDY  
 T

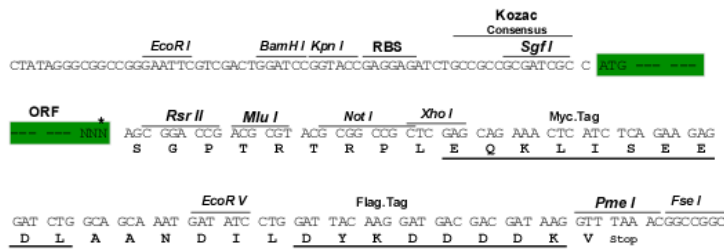
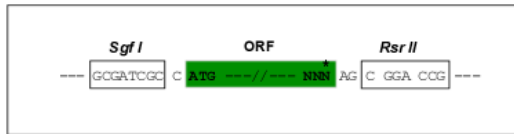
SGPTRRRLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg2674\\_d03.zip](https://cdn.origene.com/chromatograms/mg2674_d03.zip)

**Restriction Sites:** SgfI-RsrII

**Cloning Scheme:**

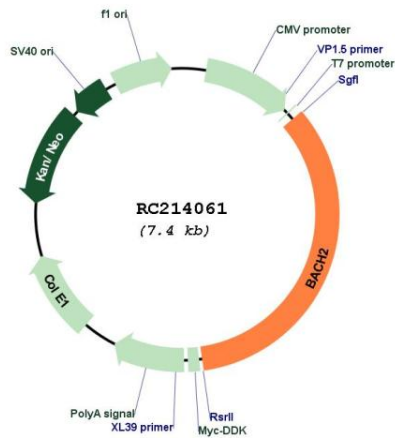
Cloning sites used for ORF Shuttling:



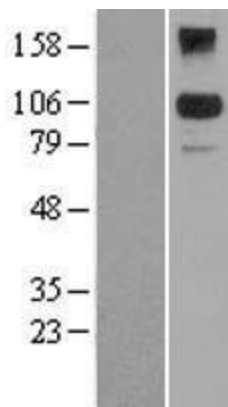
\* The last codon before the Stop codon of the ORF

<b>ACCN:</b>	NM_021813
<b>ORF Size:</b>	2523 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_021813.1</a> , <a href="#">NP_068585.1</a>
<b>RefSeq Size:</b>	9120 bp
<b>RefSeq ORF:</b>	2526 bp
<b>Locus ID:</b>	60468
<b>UniProt ID:</b>	<a href="#">Q9BYV9</a>
<b>Cytogenetics:</b>	6q15
<b>Domains:</b>	BTB, BRLZ
<b>Protein Families:</b>	Druggable Genome, Transcription Factors
<b>MW:</b>	92.4 kDa
<b>Gene Summary:</b>	Transcriptional regulator that acts as repressor or activator (By similarity). Binds to Maf recognition elements (MARE) (By similarity). Plays an important role in coordinating transcription activation and repression by MAFK (By similarity). Induces apoptosis in response to oxidative stress through repression of the antiapoptotic factor HMOX1 (PubMed:17018862). Positively regulates the nuclear import of actin (By similarity). [UniProtKB/Swiss-Prot Function]

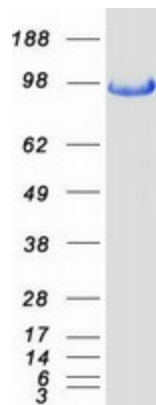
Product images:



Circular map for RC214061



Western blot validation of overexpression lysate (Cat# [LY402878]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214061 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified BACH2 protein (Cat# [TP314061]). The protein was produced from HEK293T cells transfected with BACH2 cDNA clone (Cat# RC214061) using MegaTran 2.0 (Cat# [TT210002]).