

## Product datasheet for **RC204233**

### **BAIAP2 (NM\_017450) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	BAIAP2 (NM_017450) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	BAIAP2
Synonyms:	BAP2; FLAF3; IRSP53; WAML
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC204233 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCTTTTGTCTCGCTCAGAGGAGATGCACCGGCTCACGGAAAATGTCTATAAGACCATCATGGAGCAGT  
 TCAACCTAGCCTCCGGAACCTCATCGCCATGGGGAAGAATTACGAGAAGGCACTGGCAGGTGTGACGTA  
 TGCAGCCAAAGGCTACTTTGACGCCCTGGTGAAGATGGGGGAGCTGGCCAGCGAGAGCCAGGGCTCCAAA  
 GAACTCGGAGACGTTCTCTCCAGATGGCTGAAGTCCACAGGCAGATCCAGAATCAGCTGGAAGAAATGC  
 TGAAGTCTTTTACAACGAGCTGCTTACGCAGCTGGAGCAGAAGGTGGAGCTGGACTCCAGGTATCTGAG  
 TGCTGCGTGAAGAAATACCAGACTGAGCAAAGGAGCAAAGGCGACGCCCTGGACAAGTGTGAGGCTGAG  
 CTGAAGAAGCTTCGGAAGAAGAGCCAGGGCAGCAAGAATCCTCAGAAGTACTCGGACAAGGAGCTGCAGT  
 ACATCGACGCCATCAGCAACAAGCAGGGCAGCTGGAGAATTACGTGTCCGACGGCTACAAGACCGCACT  
 GACAGAGGAGCGCAGGCGCTTCTGCTTCTGGTGGAGAAGCAGTGCGCCGTGGCCAAGAACTCCGCGGCC  
 TACCCTCCAAGGCAAGGAGCTGCTGGCGCAGAAGCTGCCGCTGTGGCAACAGGCTGTGCCGACCCCA  
 GCAAGATCCCGGAGCGCGCGGTGCAGCTCATGCAGCAGGTGGCCAGCAACGGCGCCACCCTCCAGCGC  
 CCTGTGCGCTCCAAGTCCAACCTGGTCAATTCGACCCCATTCGGGGGCAAGCCCTGCCGGTGCC  
 CCCGAGCTGGCACCGTTCGTGGGGCGGATGTCTGCCAGGAGACACCCATCATGAACGGCGTCACAG  
 GCCCGGATGGCGAGGACTACAGCCCGTGGGCTGACCGCAAGGCTGCCAGCCAAATCCCTGTCTCTCC  
 GCAGTCTCAGAGCAAGCTCAGCGACTCTACTCCAACACACTCCCGTGCGAAGAGCGTGACCCAAAA  
 AACAGCTATGCCACCACAGCCGAGAACAAGACTTGCTCGCTCGAGTCCATGGCAGCCGCGCTGGAGC  
 GCAATGGCCGTATGCGGGTGAAGGCCATCTTCTCCACGCTGCTGGGGACAACAGCACCTCTGAGCTT  
 CAAGGAGGTGACCTCATTACCTGCTGGTGCCTGAGGCCCGCGATGGCTGGCACTACGGAGAGAGTGAG  
 AAGACCAAGATGCGGGGCTGTTTCCCTTCTCCTACACCCGGTCTTGGACAGCGATGGCAGTGACAGGC  
 TGCACATGAGCCTGCAGCAAGGGAAGAGCAGCAGCAGGGCAACCTCCTGGACAAGGACGACCTGGCCAT  
 CCCACCCCGGATTACGGCGCGCCTCCCGGCCCTCCCGCCAGACGGCCAGCGGCTTCAAGCAGAGG  
 CCCTACAGTGTGGCGTGCCTCCTCCAGGGCTGGATGACTATGGAGCGCGGTCCATGAGCAGTG  
 GCAGCGCACGCTGGTGTCCACAGTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC204233 protein sequence  
 Red=Cloning site Green=Tags(s)

MSLSRSEEMHRLTENVYKTIMEQFNPSLRNFIAMGKNYEKALAGVTYAAKGYFDALVKMGELASESQGSK  
 ELGDVLFQMAEVHRQIQNQL EEMLSFHNELLTQLEQKVELDSRYLSAALKKYQTEQRSGDALDKCQAE  
 LKKLRKKSQGSKNPQKYSDELQYIDAI SNKQGELENYVSDGYKTALTEERRRF CFLVEKQCAVAKNSAA  
 YHSKGKELLAQKLPLWQACADPSKIPERAVQLMQQVANSNGATLPSALSASKSNLVISDPGIPGAKPLPVP  
 PELAPFVGRMSAQESTPIMNGVTGPDGEDYSPWADRKAAPKSLSPQSQSKLSDSYSNTLPVRKSVTPK  
 NSYATTAENKTLPRSSMAAGLERNGRMVKAIFSHAAGDNSTLLSFKEGDLITLLVPEARDGWHYGESE  
 KTKMRGWFPFSYTRVLDSGSDRLHMSLQQGKSSSTGNLLDKDDLAIPPPDYGAASRAFPQTASGFQR  
 PYSVAVPAFSQGLDDYGARSMSSSGSLVSTV

**TR**TRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6059\\_g04.zip](https://cdn.origene.com/chromatograms/mk6059_g04.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**

**ACCN:** NM\_017450

**ORF Size:** 1566 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](mailto: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](#)

**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).

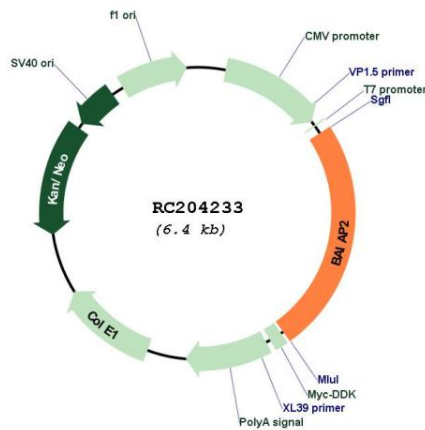
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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:** [NM\\_017450.3](#)

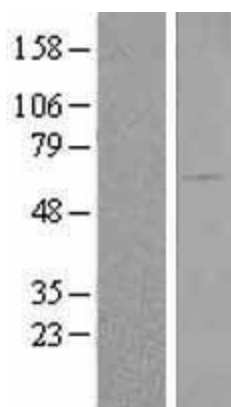
RefSeq Size:	3188 bp
RefSeq ORF:	1566 bp
Locus ID:	10458
UniProt ID:	<a href="#">Q9UQB8</a>
Cytogenetics:	17q25.3
Domains:	SH3
Protein Families:	Druggable Genome
Protein Pathways:	Adherens junction, Regulation of actin cytoskeleton
MW:	57.4 kDa

**Gene Summary:** The protein encoded by this gene has been identified as a brain-specific angiogenesis inhibitor (BAI1)-binding protein. This adaptor protein links membrane bound G-proteins to cytoplasmic effector proteins. This protein functions as an insulin receptor tyrosine kinase substrate and suggests a role for insulin in the central nervous system. It also associates with a downstream effector of Rho small G proteins, which is associated with the formation of stress fibers and cytokinesis. This protein is involved in lamellipodia and filopodia formation in motile cells and may affect neuronal growth-cone guidance. This protein has also been identified as interacting with the dentatorubral-pallidoluysian atrophy gene, which is associated with an autosomal dominant neurodegenerative disease. Alternative splicing results in multiple transcript variants encoding distinct isoforms.[provided by RefSeq, Jan 2009]

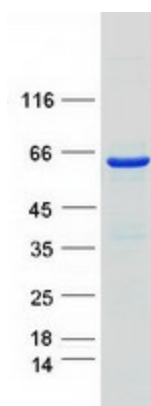
### Product images:



Circular map for RC204233



Western blot validation of overexpression lysate (Cat# [LY402587]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204233 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified BAIAP2 protein (Cat# [TP304233]). The protein was produced from HEK293T cells transfected with BAIAP2 cDNA clone (Cat# RC204233) using MegaTran 2.0 (Cat# [TT210002]).