

## Product datasheet for **RG217285**

### **BAIAP2 (NM\_017451) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	BAIAP2 (NM_017451) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	BAIAP2
Synonyms:	BAP2; FLAF3; IRSP53; WAML
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG217285 representing NM\_017451  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTCTCTGTCTCGCTCAGAGGAGATGCACCGGCTCACGGAAAATGTCTATAAGACCATCATGGAGCAGT  
 TCAACCTAGCCTCCGGAACCTCATCGCCATGGGGAAGAATTACGAGAAGGCACTGGCAGGTGTGACGTA  
 TGCAGCCAAAGGCTACTTTGACGCCCTGGTGAAGATGGGGGAGCTGGCCAGCGAGAGCCAGGGCTCCAAA  
 GAACTCGGAGACGTTCTCTCCAGATGGCTGAAGTCCACAGGCAGATCCAGAATCAGCTGGAAGAAATGC  
 TGAAGTCTTTTACAACGAGCTGCTTACGCAGCTGGAGCAGAAGGTGGAGCTGGACTCCAGGTATCTGAG  
 TGCTGCGTGAAGAAATACCAGACTGAGCAAAGGAGCAAAGGCGACGCCCTGGACAAGTGTGAGGCTGAG  
 CTGAAGAAGCTTCGGAAGAAGAGCCAGGGCAGCAAGAATCCTCAGAAGTACTCGGACAAGGAGCTGCAGT  
 ACATCGACGCCATCAGCAACAAGCAGGGCAGCTGGAGAATTACGTGTCCGACGGCTACAAGACCGCACT  
 GACAGAGGAGCGCAGGCGCTTCTGCTTCTGGTGGAGAAGCAGTGCGCCGTGGCCAAGAACTCCGCGGCC  
 TACCCTCCAAGGCAAGGAGCTGCTGGCGCAGAAGCTGCCGCTGTGGCAACAGGCTGTGCCAGCCCA  
 GCAAGATCCCGGAGCGCGCGGTGCAGCTCATGCAGCAGGTGGCCAGCAACGGCGCCACCCTCCAGCGC  
 CCTGTCCGCTCCAAGTCCAACCTGGTCATTTCCGACCCATTCCGGGGCCAAGCCCTGCCGGTGCC  
 CCCGAGCTGGCACCGTTCGTGGGGCGGATGTCTGCCAGGAGAGCACACCCATCATGAACGGCGTCACAG  
 GCCCGGATGGCGAGGACTACAGCCCGTGGGCTGACCGCAAGGCTGCCAGCCAAATCCCTGTCTCCTCC  
 GCAGTCTCAGAGCAAGCTCAGCGACTCTACTCCAACACACTCCCGTGCGAAGAGCGTGACCCAAAA  
 AACAGCTATGCCACCACCGAGAACAAGACTTGCCTCGCTCGAGCTCCATGGCAGCCGGCTGGAGCGCA  
 ATGGCCGTATGCGGGTGAAGCCATCTTCTCCACGCTGCTGGGACAACAGCACCCCTCCTGAGCTTCAA  
 GGAGGGTGACCTATTACCCTGCTGGTGCCTGAGGCCCGCGATGGCTGGCACTACGGAGAGAGTGAGAAG  
 ACCAAGATGCGGGCTGTTTTCCCTTCTCTACACCCGGTCTTGGACAGCGATGGCAGTGACAGGCTGC  
 ACATGAGCCTGCAGCAAGGGAAGAGCAGCAGCACGGGCAACCTCCTGGACAAGGACGACCTGGCCATCCC  
 ACCCCCGATTACGGCGCCGCTCCCGGCCCTCCCGCCAGACGGCCAGCGGCTTCAAGCAGAGGCC  
 TACAGTGTGGCCGTGCCGCTTCTCCAGGGCTGGATGACTATGGAGCGCGTCCATGAGCAGGAATC  
 CCTTTGCCACGTCAGCTGAAGCCGACAGTGACCAACGACAGGTGTGATCTGTCCGCCAAGGGCCAGA  
 AGGCCGGAGCACGGGATGGGAGCGCCCGCACCTGGCTGGAAGA

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

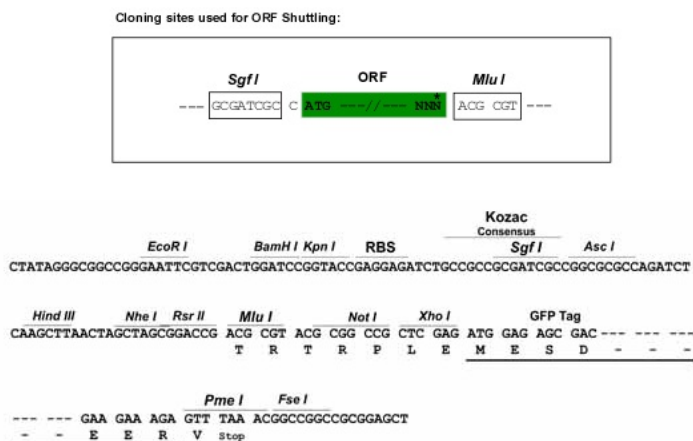
>RG217285 representing NM\_017451  
 Red=Cloning site Green=Tags(s)

MSLSRSEEMHRLTENVYKTIMEQFNPSLRNFIAMGKNYEKALAGVTYAAKGYFDALVKMGELASESQGSK  
 ELGDVLFQMAEVHRQIQNQL EEMLKSFHNELLTQLEQKVELDSRYLSAALKKYQTEQRSGDALDKCQAE  
 LKKLRKKSQGSKNPQKYSDELQYIDAI SNKQGELENYVSDGYKTALTEERRRF CFLVEKQCAVAKNSAA  
 YHSGKELLAQKLPLWQQA CADPSKIPERAVQLMQQV ASNGATLPSALSASKSNLVISDP IPGAKPLPVP  
 PELAPFVGRMSAQESTPIMNGVTGPDGEDYSPWADRKAAPKSL SPPQSQSKLSDSYSNTLPVRKSVTPK  
 NSYATTENKTLPRSSMAAGLERNGRMRVKAIFSHAAGDNSTLLSFKEGDLITLLVPEARDGWHYGESEK  
 TKMRGWFPFSYTRVLDSDGSDRLHMSLQQGKSSSTGNLLDKDDLAI PPPDYGAASRAFPQTASGFKQRP  
 YSVAVPAFSQGLDDYGARSMSRNPFAHVQLKPTVTNDRCDLSAQGPEGREHGDGSARTLAGR

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_017451

**ORF Size:** 1656 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\\_017451.1](#), [NP\\_059345.1](#)

RefSeq Size: 2877 bp

RefSeq ORF: 1659 bp

Locus ID: 10458

UniProt ID: [Q9UQB8](#)

Cytogenetics: 17q25.3

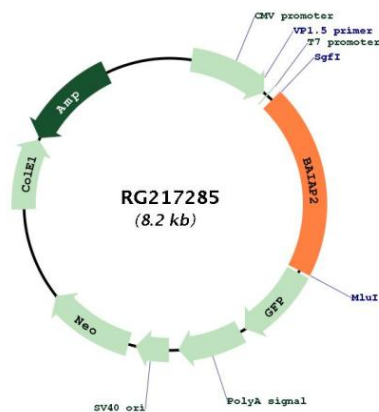
Domains: SH3

Protein Families: Druggable Genome

Protein Pathways: Adherens junction, Regulation of actin cytoskeleton

**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 RG217285