

Product datasheet for **RC214570**

BAIAP2 (NM_006340) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BAIAP2 (NM_006340) 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)



[View online »](#)

ORF Nucleotide Sequence:

>RC214570 representing NM_006340
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCTCTGTCTCGCTCAGAGGAGATGCACCGGCTCACGGAAAATGTCTATAAGACCATCATGGAGCAGT
 TCAACCTAGCCTCCGGAACCTCATCGCCATGGGGAAGAATTACGAGAAGGCACTGGCAGGTGTGACGTA
 TGCAGCCAAAGGCTACTTTGACGCCCTGGTGAAGATGGGGGAGCTGGCCAGCGAGAGCCAGGGCTCCAAA
 GAACTCGGAGACGTTCTCTCCAGATGGCTGAAGTCCACAGGAGATCCAGAATCAGCTGGAAGAAATGC
 TGAAGTCTTTTACAACGAGCTGCTTACGCAGCTGGAGCAGAAGGTGGAGCTGGACTCCAGGTATCTGAG
 TGCTGCGTGAAGAAATACCAGACTGAGCAAAGGAGCAAAGGCGACGCCCTGGACAAGTGTGAGGCTGAG
 CTGAAGAAGCTTCGGAAGAAGAGCCAGGGCAGCAAGAATCCTCAGAAGTACTCGGACAAGGAGCTGCAGT
 ACATCGACGCCATCAGCAACAAGCAGGGCAGCTGGAGAATTACGTGTCCGACGGCTACAAGACCGCACT
 GACAGAGGAGCGCAGGCGCTTCTGCTTCTGGTGGAGAAGCAGTGCGCCGTGGCCAAGAACTCCGCGGCC
 TACCCTCCAAGGCAAGGAGCTGCTGGCGCAGAAGCTGCCGCTGTGGCAACAGGCTGTGCCGACCCCA
 GCAAGATCCCGGAGCGCGCGGTGCAGCTCATGCAGCAGGTGGCCAGCAACGGCGCCACCCTCCCCAGCGC
 CCTGTGCGCTCCAAGTCCAACCTGGTCAATTCGACCCCATTCGGGGGCAAGCCCTGCCGGTGCC
 CCCGAGCTGGCACCGTTCGTGGGGCGGATGTCTGCCAGGAGAGCACACCCATCATGAACGGCGTCACAG
 GCCCGGATGGCGAGGACTACAGCCCGTGGGCTGACCGCAAGGCTGCCAGCCAAATCCCTGTCTCTCC
 GCAGTCTCAGAGCAAGCTCAGCGACTCTACTCCAACACACTCCCGTGCGAAGAGCGTGACCCAAAA
 AACAGCTATGCCACCACCGAGAACAAGACTCTGCCTCGCTCGAGCTCCATGGCAGCCGGCTGGAGCGCA
 ATGGCCGTATGCGGGTGAAGGCCATCTTCTCCACGCTGCTGGGACAACAGCACCCCTCTGAGCTTCAA
 GGAGGGTGACCTATTACCCTGCTGGTGCCTGAGGCCCGGATGGCTGGCACTACGGAGAGAGTGAGAA
 ACCAAGATGCGGGCTGGTTTCCCTTCTCTACACCCGGTCTTGGACAGCGATGGCAGTGACAGGCTGC
 ACATGAGCTGCAGCAAGGGAAGAGCAGCAGCAGGGCAACCTCTGGACAAGGACGACCTGGCCATCCC
 ACCCCCGATTACGGCGCCGCTCCCGGCCCTCCCGCCAGACGGCCAGCGGCTTCAAGCAGAGGCC
 TACAGTGTGGCCGTGCCGCTTCTCCAGGGCTGGATGACTATGGAGCGCGTCCATGAGCAGCGCC
 ATGTGGAAGTGCCAGATTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC214570 representing NM_006340
 Red=Cloning site Green=Tags(s)

MSLSRSEEMHRLTENVYKTIMEQFNPSLRNFIAMGKNYEKALAGVTYAAKGYFDALVKMGELASESQGSK
 ELGDVLFQMAEVHRQIQNQL EEMLSFHNELLTQLEQKVELDSRYLSAALKKYQTEQRSGDALDKCQAE
 LKKLRKKSQGSKNPQKYSDELQYIDAI SNKQGELENYVSDGYKTALTEERRRF CFLVEKQCAVAKNSAA
 YHSGKELLAQKLPLWQACADPSKIPERAVQLMQQVANSNGATLPSALSASKSNLVISDPPIGAKPLPVP
 PELAPFVGRMSAQESTPIMNGVTGPDGEDYSPWADRKAAPKSLSPQSQSKLSDSYSNTLPVRKSVTPK
 NSYATTENKTLPRSSMAAGLERNGRMRVKAIFSHAAGDNSTLLSFKEGDLITLLVPEARWGWHYGESEK
 TKMRGWFPFSYTRVLDSDGSDRLHMSLQQGKSSSTGNLLDKDDLAI PPPDYGAASRAFPATASGFKQRP
 YSVAVPAFSQLDDYGARSMSSADVEVARF

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6044_c12.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_006340

ORF Size: 1560 bp

OTI Disclaimer: 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.

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

RefSeq: [NM_006340.3](#)

RefSeq Size: 2129 bp

RefSeq ORF: 1563 bp

Locus ID: 10458

UniProt ID: [Q9UQB8](#)

Cytogenetics: 17q25.3

Domains: SH3

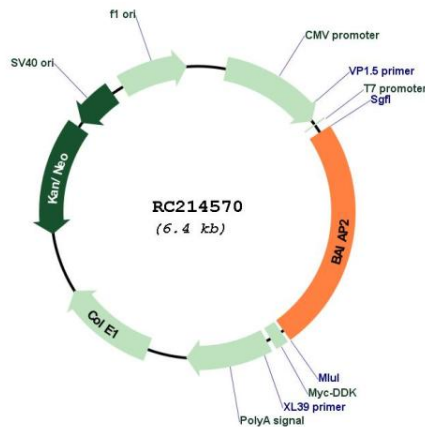
Protein Families: Druggable Genome

Protein Pathways: Adherens junction, Regulation of actin cytoskeleton

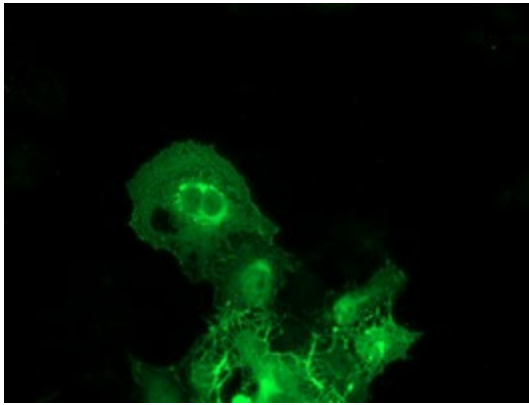
MW: 57.3 kDa

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]

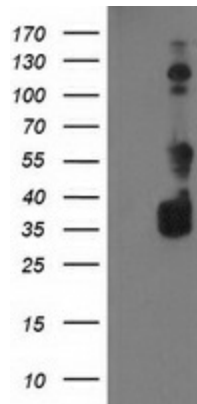
Product images:



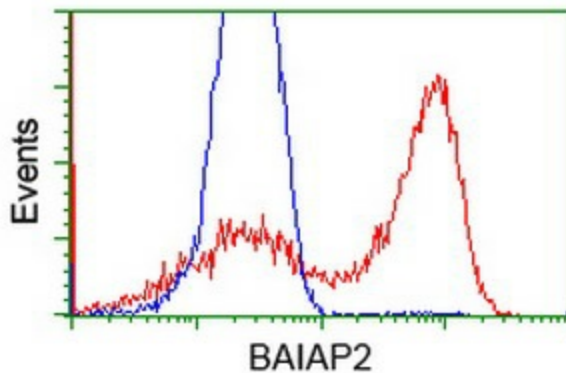
Circular map for RC214570



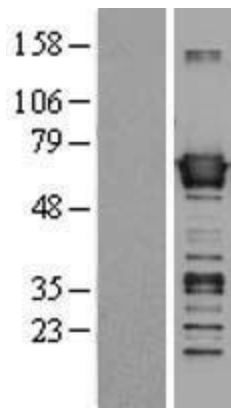
Anti-BAIAP2 mouse monoclonal antibody ([TA502981]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY BAIAP2 (RC214570).



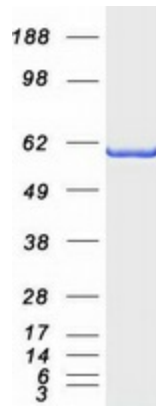
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY BAIAP2 (Cat# RC214570, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-BAIAP2 (Cat# [TA502981]). Positive lysates [LY401909] (100ug) and [LC401909] (20ug) can be purchased separately from OriGene.



HEK293T cells transfected with either RC214570 overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-BAIAP2 antibody ([TA502981]), and then analyzed by flow cytometry.



Western blot validation of overexpression lysate (Cat# [LY401909]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214570 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified BAIAP2 protein (Cat# [TP314570]). The protein was produced from HEK293T cells transfected with BAIAP2 cDNA clone (Cat# RC214570) using MegaTran 2.0 (Cat# [TT210002]).