

## Product datasheet for **RC238654**

### **ABI2 (NM\_001282925) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	ABI2 (NM_001282925) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ABI2
Synonyms:	ABI-2; ABI2B; AbIBP3; AIP-1; AIP1; argBP1; argBP1A; argBP1B; SSH3BP2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC238654 representing NM\_001282925  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGGAGCTGCAGATGCTGCTGGAAGAGGAAATCCCGGGGGCCGCCGGGCCCTCTTCGACAGCTACA  
 CAAATCTGGAACGGGTGGCCGATTACTGCGAGAACAACACTACATACAGTCAGCAGATAAGCAGAGAGCCCT  
 AGAAGAAACCAAAGCCTACACCACCCAATCCTTAGCAAGTGTGCTATCTGATAAACACCTTGGCCAAC  
 AATGTCCTGCAGATGCTGGATATCCAGGCATCCAGCTACGAAGGATGGAATCTCAATCAATCATATTT  
 CACAAACAGTTGATATTCATAAAGAGAAAAGTTGCAAGAAGAGAAAATGGTATTTTGACTACCAATAAAAA  
 CACTTCAAGGACACATAAGATTATTGCTCCAGCCAACCTGAACGACCAGTTCGTATATTAGAAAACT  
 ATTGACTATACAATTCTAGATGATTTGGACATGGAGTAAAGTGGTTGCTTAGATTTAAGGTGAGTACCC  
 AGAACATGAAGATGGGTGGCTGCCGCTACAACACCTCCAACCTCAGAAGCCCCCTAGTCCCCTATGTC  
 AGGGAAAGGGACACTTGGCGGCACTCCCCTATCGCACACTGGAGCCAGTGCCTCCAGTGGTACCA  
 AATGATTACGTACTAGCCCAACCCGTAATATGGCTCCCTCGCAGCAGAGCCCTGTGAGGACAGCTCTG  
 TGAATCAAAGAAATCGAACTTACAGCAGCAGTGGGAGTAGTGGAGGGAGCCACCCAAGTAGTCGGAGCAG  
 CAGTCGAGAGAACAGTGGAAAGTGGTAGTGTGGGGTTCCTATTGCTGTTCCCTACTCCATCTCCTCCCAGT  
 GTCTTCCAGCCCCTGCTGGCTCTGCTGGCACTCCTCCCCTTCTGCTACTTCTGCATCTGCCCTGCTC  
 CTCTTGTCTGCTACTGTCCTTCTCCACTGCCCCAGACGCTGCTGCTGGGGTGGCCAGACCCTTGC  
 TGATGGCTTCACTTCTCCAACCTCCCCTGTTGTTTCTTCCACTCCCCTACAGGTATCCTGTACAGTTC  
 TACAGCATGAATAGGCCCTGCTCGCCATACTCCCCAACAAATAGGGGGCTCGTTGCCCTATAGACGCC  
 CTCTTCCATTACTTACAAACAAGCCTTCAGAATCAGATGAATGGAGGACCTTTTATAGCCAGAATCC  
 AGTTTTCAGATACACCACCTCCACCGCCACTGTGGAAGAACCAGTCTTTGATGAGTCTCCCCACCTCCT  
 CCTCTCCAGAAGATTACGAAGAGGAGGAAGCTGCTGTGGTTGAGTATAGTGATCCTTATGCTGAAGAGG  
 ACCCACCGTGGGCTCCACGTTCTTACTTGGAAAAGTTGTGGCAATTTATGACTATACAAAAGACAAGGA  
 AGATGAGCTGCTCTTTCAGGAAGGAGCCATTATTTATGTCATCAAGAAGAATGACGATGGTTGGTATGAG  
 GGAGTTATGAATGGAGTGACTGGGCTTTTTCTGGGAATTACGTTGAGTCTATCATGCATTATTCTGAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC238654 representing NM\_001282925  
 Red=Cloning site Green=Tags(s)

MAELQMLLEEEIPGGRRALFDSYTNLERVADYCENNYIQSADKQRALEETKAYTTQSLASVAYLINTLAN  
 NVLQMLDIQASQLRRMESSINHISQTVDIHKEKVARREIGILTNNKNTSRTHKIIAPANLERPVYIRKP  
 IDYTLILDIGHGVKWLRLRFKVVSTQNMKMGGLPRTTPPTQKPPSPMSGKTLGRHSPYRTLEPVRPPVVP  
 NDYVPSPTRNMAPSQSPVRTASVNQRNRTYSSSGSSGGSHPSRSSRENSGSGSVGVPIAVPTPSPPS  
 VFPAPAGSAGTPPLPATASAPAPLVPATVPSSTAPDAAAGGAQTLADGFTSPTPPVVSSTPPTGHPVQF  
 YSMNRPASRHTPPTIGGSLPYRRPPSITSQTSLQNMNGGPFYSQNPVSDTPPPPPVVEEPVFDESPPPP  
 PPPEDYEEEEAAVVEYSDPYAEEDPPWAPRSYLEKVVAIYDYTKDKEDELSFQEGAIYVIKKNDDGWYE  
 GVMNGVTGLFPNGYVESIMHYSE

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001282925

**ORF Size:** 1539 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.

**RefSeq:** [NM\\_001282925.3](#)

**RefSeq Size:** 6647 bp

**RefSeq ORF:** 1542 bp

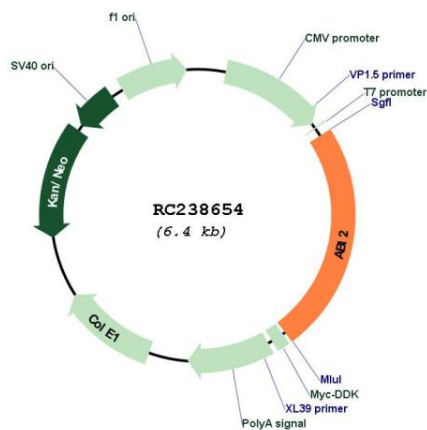
**Locus ID:** 10152

**UniProt ID:** [Q9NYB9](#)

**Cytogenetics:** 2q33.2

<b>Protein Pathways:</b>	Regulation of actin cytoskeleton
<b>MW:</b>	56.1 kDa
<b>Gene Summary:</b>	Regulator of actin cytoskeleton dynamics underlying cell motility and adhesion. Functions as a component of the WAVE complex, which activates actin nucleating machinery Arp2/3 to drive lamellipodia formation (PubMed:21107423). Acts as regulator and substrate of nonreceptor tyrosine kinases ABL1 and ABL2 involved in processes linked to cell growth and differentiation. Positively regulates ABL1-mediated phosphorylation of ENAH, which is required for proper polymerization of nucleated actin filaments at the leading edge (PubMed:7590236, PubMed:8649853, PubMed:10498863). Contributes to the regulation of actin assembly at the tips of neuron projections. In particular, controls dendritic spine morphogenesis and may promote dendritic spine specification toward large mushroom-type spines known as repositories of memory in the brain (By similarity). In hippocampal neurons, may mediate actin-dependent BDNF-NTRK2 early endocytic trafficking that triggers dendrite outgrowth (By similarity). Participates in ocular lens morphogenesis, likely by regulating lamellipodia-driven adherens junction formation at the epithelial cell-secondary lens fiber interface (By similarity). Also required for nascent adherens junction assembly in epithelial cells (PubMed:15572692).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for RC238654