

Product datasheet for **RG238654**

ABI2 (NM_001282925) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ABI2 (NM_001282925) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ABI2
Synonyms:	ABI-2; ABI2B; AbIBP3; AIP-1; AIP1; argBP1; argBP1A; argBP1B; SSH3BP2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG238654 representing NM_001282925.
 Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGGCGGAGTGCAGATGCTGCTGGAAGAGGAAATCCCGGGGGCCGCCGGGCCCTCTTCGACAGCTAC
ACAAATCTGGAACGGGTGGCCGATTACTGCGAGAACAACACTACAGTCAGCAGATAAGCAGAGAGCC
CTAGAAGAAACCAAGCCTACACCACCAATCCTTAGCAAGTGTGCCTATCTGATAAACACCTTGCC
AACAAATGTCCTGCAGATGCTGGATATCCAGGCATCCCAGCTACGAAGGATGGAATCTTCAATCAATCAT
ATTTACAAAACAGTTGATATTCATAAAGAGAAAGTTGCAAGAAGAGAAATGGTATTTTGACTACCAAT
AAAAACACTTCAAGGACACATAAGATTATTGCTCCAGCCAACCTTGAACGACCAGTTCGTATATTAGA
AAACCTATTGACTATAACAATTCTAGATGATTTGGACATGGAGTAAAGTGGTTGCTTAGATTTAAGGTG
AGTACCCAGAACATGAAGATGGGTGGGCTGCCCGTACAACACCTCCAACCTCAGAAGCCCTAGTCCC
CCTATGTCAGGAAAGGGACACTTGGCGGCACTCCCCCTATCGCACACTGGAGCCAGTGCCTCTCCA
GTGGTACCAAATGATTACGTACCTAGCCCAACCGTAATATGGCTCCCTCGCAGCAGAGCCCTGTGAGG
ACAGCTTCTGTGAATCAAAGAAATCGAACTTACAGCAGCAGTGGGAGTAGTGGAGGGAGCCACCCAAGT
AGTCGGAGCAGCAGTCGAGAGAACAGTGAAGTGGTAGTGTGGGGTTTCTATTGCTGTTCTACTCCA
TCTCCTCCAGTGTCTTCCAGCCCCTGCTGGCTCTGCTGGCACTCCTCCCCTTCTGCTACTTCTGCA
TCTGCCCTGCTCCTCTTGTCTGCTACTGTCCTTCTCCACTGCCCCAGACGCTGCTGCTGGGGT
GCCCAGACCCTTGTGATGGCTTCACTTCTCCAACCTCCCCTGTTGTTTCTTCCACTCCCCTACAGGT
CATCCTGTACAGTTCTACAGCATGAATAGGCCTGCCTCTGCCATACTCCCCAACAAATAGGGGGCTCG
TTGCCCTATAGACGCCCTCCTTCCATTACTTACAAAACAAGCCTTCAAGATCAGATGAATGGAGGACCT
TTTTATAGCCAGAATCCAGTTTTCAGATACACCACCTCCACCCACCTGTGGAAGAACCAGTCTTTGAT
GAGTCTCCCCACCTCCTCCTCCAGAAATTACGAAGAGGAGGAAGCTGCTGTGTTGAGTATAGT
GATCCTTATGCTGAAGAGGACCCACCGTGGGCTCCACGTTCTTACTTGGAAAAGTTGTGCAATTTAT
GACTATACAAAAGACAAGGAAGATGAGCTGTCCTTTCAGGAAGGAGCCATTATTTATGTCATCAAGAAG
AATGACGATGGTTGGTATGAGGGAGTTATGAATGGAGTACTGGGCTTTTCTGGGAATTACGTTGAG
TCTATCATGCATTATTCTGAG
ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTAAAC
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Protein Sequence:

>Peptide sequence encoded by RG238654
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MAELQMLLEEEIPGGRRALFDSYTNLERVADYCENNYIQSADKQRALEETKAYTTQSLASVAYLINTLA
NNVLQMLDIQASQLRRMESSINHISQTVDIHKEKVARREIGILTTNKNTSRTHKIAPANLERPVYRIR
KPIDYITLDDIGHGVKWLRLRFKYSTQNMKGGLPRTTPPTQKPPSPMSGKTLGRHSPYRTLEPVRPP
VVPNDYVPSPTRNMAPSQSPVRTASVNRNRTYSSGSSGGSHPSRSSRENSGSGVGVPIAVPPTP
SPPSVFPAPAGSAGTPPLPATSASAPAPLVPATVPSSTAPDAAAGGAQTLADGFTSPTPPVVSSTPPTG
HPVQFYSMNRPASRHTPPTIGGSLPYRRPPTSITSQSLQNMNGGPFYSQNPVSDTPPPPPVEEPVFD
ESPPPPPPPEDYEEEEAAVVEYSDPYAEEDPPWAPRSYLEKVVAIYDYTKDELSFQEGAIYVIK
NDDGWYEGVMNGVTGLFPGNYVESIMHYSE
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
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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).

RefSeq: [NM_001282925.3](#)

RefSeq Size: 6647 bp

RefSeq ORF: 1542 bp

Locus ID: 10152

UniProt ID: [Q9NYB9](#)

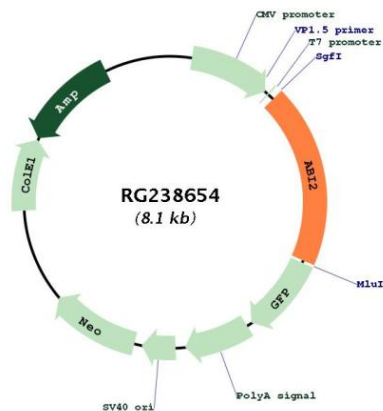
Cytogenetics: 2q33.2

Protein Pathways: Regulation of actin cytoskeleton

MW: 56.1 kDa

Gene Summary:

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 RG238654