

Product datasheet for **RG238615**

ABI2 (NM_001282926) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ABI2 (NM_001282926) 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:

>RG238615 representing NM_001282926.
 Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGGCGGAGTGCAGATGCTGCTGGAAGAGGAAATCCCGGGGGCCCGGGCCCTCTTCGACAGCTAC
ACAAATCTGGAACGGGTGGCCGATTACTGCGAGAACAACATACAGTCAGCAGATAAGCAGAGAGCC
CTAGAAGAAACCAAGCCTACACCACCAATCCTTAGCAAGTGTGCCTATCTGATAAACACCTTGCC
AACAAATGTCCTGCAGATGCTGGATATCCAGGCATCCCAGCTACGAAGGATGGAATCTTCAATCAATCAT
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ACACTTGGGCGGCACTCCCCTATCGCACACTGGAGCCAGTGCCTCCAGTGGTACCAATGATTAC
GTACCTAGCCCAACCCGTAATATGGCTCCCTCGCAGCAGAGCCCTGTGAGGACAGCTTCTGTGAATCAA
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GACCCACCGTGGGCTCCACGTTCTACTTGAAAAGGTTGTGGCAATTTATGACTATACAAAAGACAAG
GAAGATGAGCTGTCTTTAGGAAGGAGCCATTATTTATGTCATCAAGAAGAATGACGATGGTTGGTAT
GAGGGAGTTATGAATGGAGTACTGGGCTTTTTCTGGGAATTACGTTGAGTCTATCATGCATTATCT
GAG
ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTAAAC
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Protein Sequence:

>Peptide sequence encoded by RG238615
 Blue=ORF Red=Cloning site Green=Tag(s)

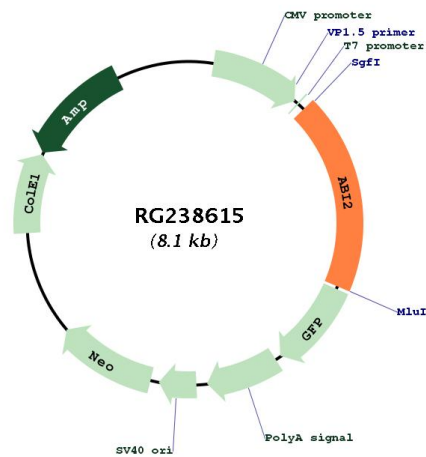
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NNVLQMLDIQASQLRRMESSINHISQTVDIHKEKVARREIGILTTNKNTSRTHKIAPANLERPVYRIR
KPIDYITLDDIGHGVKSTQNMKMGGLPRTTPPTQKPPSPMMSGKGLGRHSPYRTLEPVRPPVVPNDY
VPSPTRNMAPSQQSPVRTASVNQRNRTYSSGSGGSHPSRSSSRENSGSGSVGVPIAVPTPSPPSVF
PAPAGSAGTPPLPATASAPAPLPATVPSSTAPDAAAGGAQTLADGFTSPTPPVVSSTPPTGHPVQFY
SMNRPASRHTPPTIGGSLPYRRPPSITSQSLQNMGGPFYSQNPVSDTPPPPPVEEPPVFDESPPPP
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MGYGFYHFGTYPSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
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Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:


Plasmid Map:


ACCN:	NM_001282926
ORF Size:	1521 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_001282926.3
RefSeq Size:	6629 bp
RefSeq ORF:	1524 bp
Locus ID:	10152
UniProt ID:	Q9NYB9
Cytogenetics:	2q33.2
Protein Pathways:	Regulation of actin cytoskeleton
MW:	55.3 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]