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Product datasheet for RC237917

ABI2 (NM_001282932) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ABI2 (NM_001282932) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ABI2
Synonyms:	ABI-2; ABI2B; AblBP3; AIP-1; AIP1; argBP1; argBPIA; argBPIB; SSH3BP2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC237917 representing NM_001282932 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGTTTTTTAAAAGTTATTTACTTAAAATATCTATACTTAGGCAAATTAGAGGCGTTGATCTTGAGTCGA CTTTTGTGACCAAATTTGGAAACAATTGCAGTTTGAGATTGAATGAGACAGTTGATATTCATAAAGAGAA AGTTGCAAGAAGAGAAATTGGTATTTTGACTACCAATAAAAACACTTCAAGGACACATAAGATTATTGCT CCAGCCAACCTTGAACGACCAGTTCGTTATATTAGAAAACCTATTGACTATACAATTCTAGATGATATTG GACATGGAGTAAAGGTGAGTACCCAGAACATGAAGATGGGTGGGCTGCCGCGTACAACACCTCCAACTCA GAAGCCCCCTAGTCCCCCTATGTCAGGGAAAGGGACACTTGGGCGGCACTCCCCCTATCGCACACTGGAG CCAGTGCGTCCTCCAGTGGTACCAAATGATTACGTACCTAGCCCAACCCGTAATATGGCTCCCTCGCAGC AGAGCCCTGTGAGGACAGCTTCTGTGAATCAAAGAAATCGAACTTACAGCAGCAGTGGGAGTAGTGGAGG GAGCCACCCAAGTAGTCGGAGCAGCAGTCGAGAGAACAGTGGAAGTGGTAGTGTGGGGGTTCCTATTGCT GTTCCTACTCCATCTCCTCCCAGTGTCTTTCCAGGTCATCCTGTACAGTTCTACAGCATGAATAGGCCTG CCTCTCGCCATACTCCCCCAACAATAGGGGGCTCGTTGCCCTATAGACGCCCTCCTTCCATTACTTCACA AACAAGCCTTCAGAATCAGATGAATGGAGGACCTTTTTATAGCCAGAATCCAGTTTCAGATACACCACCT CCACCGCCACCTGTGGAAGAACCAGTCTTTGATGAGTCTCCCCCACCTCCTCCTCCTCCAGAAGATTACG AAGAGGAGGAAGCTGCTGTGGTTGAGTATAGTGATCCTTATGCTGAAGAGGACCCACCGTGGGCTCCACG TTCTTACTTGGAAAAGGTTGTGGCAATTTATGACTATACAAAAGACAAGGAAGATGAGCTGTCCTTTCAG GAAGGAGCCATTATTTATGTCATCAAGAAGAATGACGATGGTTGGTATGAGGGAGTTATGAATGGAGTGA CTGGGCTTTTTCCTGGGAATTACGTTGAGTCTATCATGCATTATTCTGAG ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

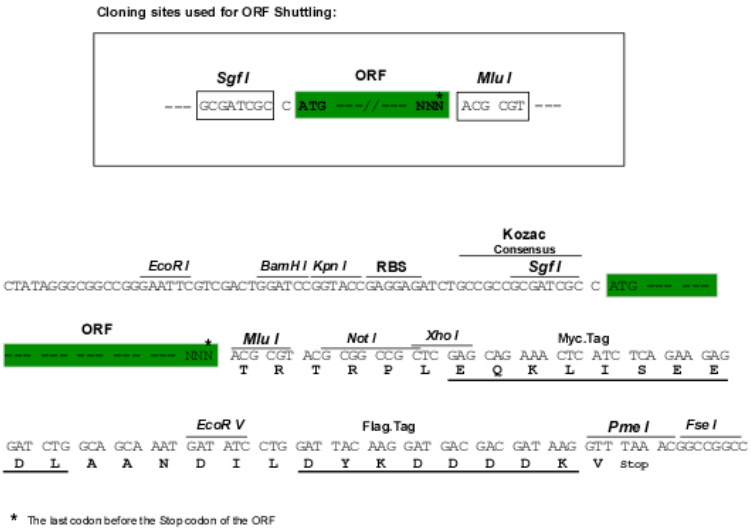
>RC237917 representing NM_001282932
Red=Cloning site Green=Tags(s)

MFFKSYLLKISILRQIRGVDLESTFVTKFGNNCSLRLNETVDIHKEKVARREIGILTTNKNTSRTHKIIA
PANLERPVRYIRKPIDYTILDDIGHGVKVSTQNMKMGGLPRTTPPTQKPPSPPMSGKGTLGRHSPYRTLE
PVRPPVVPNDYVPSPTRNMAPSQQSPVRTASVNQRNRTYSSSGSSGGSHPSSRSSSRENSGSGSVGVPIA
VPTPSPPSVFPGHPVQFYSMNRPASRHTPPTIGGSLPYRRPPSITSQTSLQNQMNGGPFYSQNPVSDTPP
PPPPVEEPVFDESPPPPPPPEDYEEEEAAVVEYSDPYAEEDPPWAPRSYLEKVVAIYDYTKDKEDELSFQ
EGAIIYVIKKNDDGWYEGVMNGVTGLFPGNYVESIMHYSE

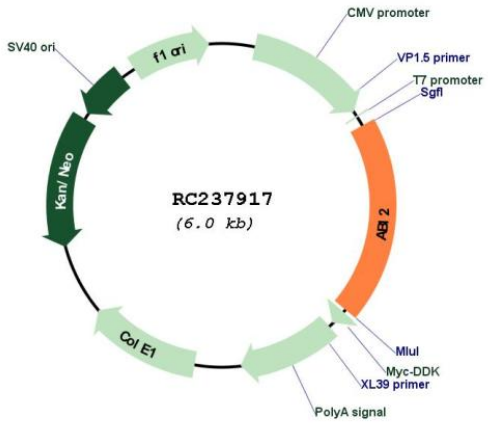
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001282932

ORF Size:	1170 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_001282932.2
RefSeq Size:	6643 bp
RefSeq ORF:	1173 bp
Locus ID:	10152
Cytogenetics:	2q33.2
Protein Pathways:	Regulation of actin cytoskeleton
MW:	43.5 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]