

Product datasheet for **RC200637**

ABI2 (NM_005759) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ABI2 (NM_005759) 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:

>RC200637 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGAGCTGCAGATGCTGCTGGAAGAGGAAATCCCGGGGGCCGCCGGCCCTCTTCGACAGCTACA
 CAAATCTGGAACGGGTGGCCGATTACTGCGAGAACAACACTACATACAGTCAGCAGATAAGCAGAGAGCCCT
 AGAAGAAACCAAAGCCTACACCACCCAATCCTTAGCAAGTGTTCCTATCTGATAAACACCTTGGCCAAC
 AATGTCCTGCAGATGCTGGATATCCAGGCATCCCAGCTACGAAGGATGGAATCTTCAATCAATCATATTT
 CACAAACAGTTGATATTCATAAAGAGAAAAGTTGCAAGAAGAGAAAATGGTATTTTGACTACCAATAAAAA
 CACTTCAAGGACACATAAGATTATTGCTCCAGCCAACCTTGAACGACCAGTTCGTATATTAGAAAACT
 ATTGACTATACAATTCTAGATGATATTGGACATGGAGTAAAGGTGAGTACCCAGAACATGAAGATGGGTG
 GGCTGCCCGGTACAACACCTCCAACCTCAGAAGCCCCTAGTCCCCTATGTCAGGAAAGGGACACTTGG
 GCGGCACTCCCCCTATCGCACACTGGAGCCAGTGGTCCCTCCAGTGGTACCAAATGATTACGTACCTAGC
 CCAACCGTAATATGGCTCCCTCGCAGCAGAGCCCTGTGAGGACAGCTTCTGTGAATCAAAGAAATCGAA
 CTTACAGCAGCAGTGGGAGTAGTGGAGGGAGCCACCAAGTAGTCGGAGCAGCAGTCGAGAGAACAGTGG
 AAGTGGTAGTGTGGGGTTCCTATTGCTGTTTCTACTCCATCTCCTCCCAGTGTCTTTCCAGGTCATCCT
 GTACAGTTCTACAGCATGAATAGGCCTGCCTCTCGCCACTCCCCCAACAATAGGGGGCTGTTGCCCT
 ATAGACGCCCTCCTTCCATTACTTCACAAACAAGCCTTCAGAATCAGATGAATGGAGGACCTTTTATAG
 CCAGAATCCAGTATCTCTGCTCCTCCTCCTCCATCCTACAGGTAACCTCAGTTACCTTTAATG
 GGATTTGTGGCCAGAGTCCAAGAAAATATTTAGATACACCACCTCCACGCCACCTGTGGAAGAACCAG
 TCTTTGATGAGTCTCCCCACCTCCTCCTCCTCAGAAAGATTACGAAGAGGAGGAAGCTGTGGTTGA
 GTATAGTGATCCTTATGCTGAAGAGGACCCACCTGGGCTCCACGTTCTTACTTGGAAAAGGTTGTGGCA
 ATTTATGACTATACAAAAGACAAGGAAGATGAGCTGCTCTTTCAGGAAGGAGCCATTATTTATGTCATCA
 AGAAGAATGACGATGGTTGGTATGAGGGAGTTATGAATGGAGTACTGGGCTTTTTCTGGGAATTACGT
 TGAGTCTATCATGCATTATTCTGAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC200637 protein sequence
 Red=Cloning site Green=Tags(s)

MAELQMLLEEEIPGGRRALFDSYTNLERVADYCENNYIQSADKQRALEETKAYTTQSLASVAYLINTLAN
 NVLQMLDIQASQLRRMESSINHISQTVDIHKEKVARREIGILTTNKNTSRTHKIIAPANLERPVRVIRKP
 IDYITILDIGHGKVVSTQNMKMGGLPRTTPPTQKPPSPPMSGKTLGRHSPYRTLEPVRPPVVPNDYVPS
 PTRNMAPSQSPVRTASVNQRNRTYSSGSSGSHPSRSSSRENSGSGSVGVPIAVPTPSPPSVFPGHP
 VQFYSMNRPASRHTPPTIGGSLPYRRPPSITSQTSLQNMNGGPFYSQNPVSLAPPPSILQVTPQLPLM
 GFVARVQENISDTPPPPPVEEPVFDESPPPPPPEDYEEEEAAVVEYSDPYAEEDPPWAPRSYLEKVVA
 IYDYTKDKEDELSFQEGAIIVYIKKNDGWYEGVMNGVTGLFPGNYVESIMHYSE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6175_a11.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_005759

ORF Size: 1425 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_005759.7](#)

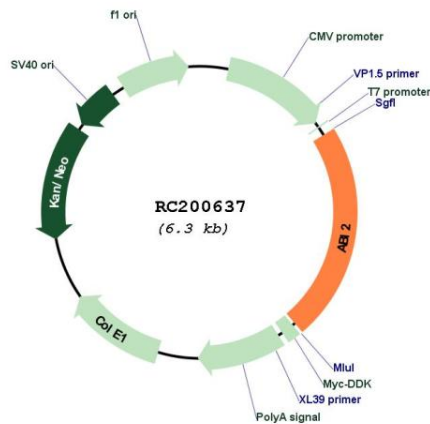
RefSeq Size: 6533 bp

RefSeq ORF: 1428 bp

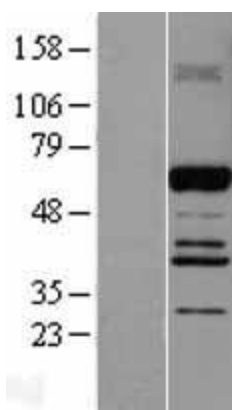
Locus ID: 10152

UniProt ID:	<u>Q9NYB9</u>
Cytogenetics:	2q33.2
Domains:	SH3
Protein Pathways:	Regulation of actin cytoskeleton
MW:	52.4 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]

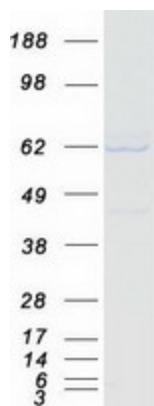
Product images:



Circular map for RC200637



Western blot validation of overexpression lysate (Cat# [LY401755]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200637 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ABI2 protein (Cat# [TP300637]). The protein was produced from HEK293T cells transfected with ABI2 cDNA clone (Cat# RC200637) using MegaTran 2.0 (Cat# [TT210002]).