

Product datasheet for SC335885

ABI2 (NM_001282927) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ABI2 (NM_001282927) Human Untagged Clone
Tag:	Tag Free
Symbol:	ABI2
Synonyms:	ABI-2; ABI2B; AbIBP3; AIP-1; AIP1; argBP1; argBPIA; argBPIB; SSH3BP2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC335885 representing NM_001282927. Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTGTAGTAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
 GATCCGGTACCGAGGAGATCTGCCGCC**CGATCGCC**
 ATGTCCTGCAGATGCTGGATATCCAGGCATCCCAGCTACGAAGGATGGAATCTTCAATCAATCATATTT
 CACAAGCAAATTAGAGCGTTGATCTTGAGTCGACTTTTGTGACCAAATTTGAAACAATTCAGTTTG
 AGATTGAATGAGACAGTTGATATTCATAAAGAGAAAGTTGCAAGAAGAGAAATGGTATTTTGACTACC
 AATAAAACACTTCAAGGACACATAAGATTATTGCTCCAGCCAACCTTGAACGACCAGTTCGTTATATT
 AGAAAACCTATTGACTATACAATTCTAGATGATATTGGACATGGAGTAAAGGTGAGTACCCAGAACATG
 AAGATGGGTGGGCTGCCGCTACAACACCTCCAACCTCAGAAGCCCCCTAGTCCCCCTATGTCAGGGAAA
 GGGACACTTGGGCGGCACTCCCCCTATCGCACACTGGAGCCAGTGGCTCCTCCAGTGGTACCAAATGAT
 TACGTACCTAGCCCAACCCGTAATATGGCTCCCTCGCAGCAGAGCCCTGTGAGGACAGCTTCTGTGAAT
 CAAAGAAATCGAATTACAGCAGCAGTGGGAGTAGTGGAGGGAGCCACCAAGTAGTCGGAGCAGCAGT
 CGAGAGAACAGTGAAGTGGTAGTGTGGGGTTCTATTGCTGTTCTTCTACTCCATCTCCTCCAGTGTC
 TTTCCAGGTCATCCTGTACAGTTCTACAGCATGAATAGGCCTGCCTCTCGCCATACTCCCCAACATA
 GGGGGCTCGTTGCCCTATAGACGCCCTCCTCCATTACTTCACAAACAAGCCTTCAGAATCAGATGAAT
 GGAGGACCTTTTTATAGCCAGAAATCCAGTTTCAGATACACCACCTCCACGCCACCTGTGGAAGAACCA
 GTCTTTGATGAGTCTCCCCACCTCCTCCTCCAGAAGATTACGAAGAGGAGGAAGCTGCTGTGGTT
 GAGTATAGTGATCCTTATGCTGAAGAGGACCCACCGTGGGCTCCAGTTCTTACTTGGAAAAGTTGTG
 GCAATTTATGACTATACAAAAGACAAGGAAGATGAGCTGTCTTTTCAGGAAGGAGCCATTATTTATGTC
 ATCAAGAAGAATGACGATGGTTGGTATGAGGGAGTTATGAATGGAGTGACTGGGCTTTTTCTGGGAAT
 TACGTTGAGTCTATCATGCATTATTCTGAGTAA
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
 TACAAGGATGACGACGATAAGGTTTAAACGGCCGCGC

Restriction Sites: SgfI-MluI


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ACCN:	NM_001282927
Insert Size:	1206 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<ol style="list-style-type: none"> 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:	<u>NM_001282927.1</u>
RefSeq Size:	6122 bp
RefSeq ORF:	1206 bp
Locus ID:	10152
UniProt ID:	<u>Q9NYB9</u>
Cytogenetics:	2q33.2
Protein Pathways:	Regulation of actin cytoskeleton
MW:	44.4 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]

Transcript Variant: This variant (4) differs in its 5' UTR, differs in the presence and absence of exons in the 5' coding region, initiates translation at an alternate start codon, and lacks an in-frame exon in the central coding region, compared to variant 1. The encoded isoform (d) has a distinct N-terminus and is shorter than isoform a. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.