

Product datasheet for **SC127725**

BAF53A (ACTL6A) (NM_178042) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BAF53A (ACTL6A) (NM_178042) Human Untagged Clone
Tag:	Tag Free
Symbol:	BAF53A
Synonyms:	ACTL6; Arp4; ARPN-BETA; BAF53A; INO80K
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC127725 sequence for NM_178042 edited (data generated by NextGen Sequencing)

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ATGGTGGTAGAAAAGAGATGACGGAAGCACATTAATGGAAATAGATGGCGATAAAGGCCAA
CAAGGCGGTCCCACCTACTACATAGATACTAATGCTCTGCGTGTCCGAGGGAGAATATG
GAGGCCATTTACCTCTAAAAATGGGATGGTTGAAGACTGGGATAGTTTCCAAGCTATT
TTGGATCATACCTACAAAATGCATGTCAAATCAGAAGCCAGTCTCCATCCTGTTCTCATG
TCAGAGGCACCGTGAATACTAGAGCAAAGAGAGAGAACTGACAGAGTTAATGTTTGAA
CACTACAACATCCCTGCCTTCTTCTTTGCAAACTGCAGTTTTGACAGCATTGCTAAT
GGTCGTTCTACTGGGCTGATTTTGGACAGTGGAGCCACTCATACCACTGCAATCCAGTC
CACGATGGCTATGTCCTTCAACAAGGCATTGTGAAATCCCCTCTTGCTGGAGACTTTATT
ACTATGCAGTGCAGAGAACTCTTCCAAGAAATGAATATTGAATTGGTTCCCTCCATATATG
ATTGCATCAAAAAGAGCTGTTTCGTGAAGGATCTCCAGCAAAGTGGAAAAGAAAAGAGAAG
TTGCCCTCAGGTTACGAGGCTTGGCACAATTATATGTGTAATTGTGTTATCCAGGATTTT
CAAGCTTCGGTACTTCAAGTGTGAGATTCAACTTATGATGAACAAGTGGCTGCACAGATG
CCAAGTGTTCATTATGAATCCCAATGGCTACAATTGTGATTTTGGTGCAGAGCGGCTA
AAGATTCCAGAAGGATTTTGGACCTTCCAATGTAAAGGGGTTATCAGGAAACACAATG
TTAGGAGTCAGTCATGTTGTCACCACAAGTGTGGGATGTGTGATATTGATATCAGACCA
GGTCTCTATGGCAGTGTAAATAGTGGCAGGAGGAAACACACTAATACAGAGTTTACTGAC
AGTTTGAATAGAGAGCTGTCTCAGAAAACCTCCTCCAAGTATGCGGTTGAAATTGATTGCA
AATAATACAACAGTGAACGGAGGTTTAGCTCATGGATTGGCGGCTCCATTCTAGCCTCT
TTGGGTACCTTTCAACAGATGTGGATTTCCAAGCAAGAATATGAAGAAGGAGGGAAGCAG
TGTGTAGAAAAGAAAATGCCCTTGA

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Clone variation with respect to NM_178042.2
891 c=>t



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5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_178042 unedited</p> <p>TACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCTGAGCTCCGGGGTGTGTGGA CGCCGCTTTGTTGCTGAGGTGGGTGGCGGTGGAAGTTAAGGGAGTCAGGGGCTATCGCT CCTCGAGACTCGCAGTCGCGGCCACTGCAGTCACTTCGCCAGTTAGCCCTTAGGGTAGGA GTCGCGCCGGCAGCAGCCATGAGCGGCGCGTGTACGGGGGAGATGAAGTTGGAGCCCTT GTTTTTGACATTGGATCCTATACTGTGAGAGCTGGTTATGCTGGTGAGGACTGCCCAAG GTGGATTTTCTACAGCTATTGGTATGGTGGTAGAAAGAGATGACGGAAGCACATTAATG GAAATAGATGGCGATAAAGGCAAACAAGGCGGTCCCACCTACTACATAGATACTAATGCT CTGCGTGTCCGAGGGAGAATATGGAGGCCATTTACCTCTAAAAAATGGGATGGTTGAA GACTGGGATAGTTTCCAAGCTATTTGGATCATACCTACAAAATGCATGTCAAATCAGAA GCCAGTCTCCATCCTGTTCTCATGTGAGAGGCACCGTGAATACTAGAGCAAAGAGAGAG AAACTGACAGAGTTAATGTTTGAACACTACAACATCCCTGCCTTCTCTTTGCAANACT GCAGTTTTGACAGCATTGCTAATGGGTCGTTCTACTGGGGCTGATTNTGGNNACAGTGG AGCCCACTCATACACTGCAATTCAGTCCACGATGGGCTATGTCCTTCAAACAGGCATT GTGAAAATCCCTCTTGCTGGAGACTCTATTCTATGCAGGGCAGAGAACTCTTCCAGAATG ATATGGGGATTTGGCTCCTCTATATGATAGCTCAAAGGAGCTGCTCGGGGAGGATCTCA GCAACTGGAAGAAAANGAGAGCTGCTCAGGTTCCGAGGGCTTGCACATATATGGGAATT GGGTANCCAGGATTGAG</p>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_178042 unedited</p> <p>TTATGTCCGTGGCCCGCAATCTACGACCGAGTTTTTTTTTTTTTTTTTTTATTTCTGGCAA GGCTAATTTTTTATTTAATTCTGCAAGCCTAAGGCAAAAAGCATAGGCAGCAACTTTTACT AGTCAATAAAAAGCAGTTCTACCAATCCACTGGTAATTAATACACTAAACAGAGTTGGAA AGCATTTTACTGAAAGCAAAATATTTAGAGAAAATAGCACATTTATACAAAATTAAAAA TGCTTGTAAATAACAATAAGCGCATTTTAAGGAAAAGCACAACTTAATTTATAGAGCCAGG TCAAGCTTTAAAAAATTTAAGTGCAAAATGAAATATGCACAAATGTATAAACATTCTACA AAAGATGGCCATTCTTTTCTGAGTATACTAACGCTATGAAACCCACGGCGACACAAGGA AGGTCAAACCTTGGGAACCTTTTCTCAAGGGCATTCCGTTTATACACACTGCTTAACTAC TTGTTAATCAACCGGCTTGAAAACCCACATTTGTTCCAAGGTACTCAACCAGGTTACAAT GGTCTGCCTAACCTATGATATAAACCTCCGCAGACTGCCGCATGATCTCGACCCCTCTTA CTCGTTACTTGTGGATTTTTTTGTACCCTCCTCTATCCCACCTGCTATTAACCCCTGTC ATCACAGACCACCCCCCTATCACCTGCGTAGACCATGCCCAGCATTTGATTTTTC CCCTGTCCACACCTGCGCGACACCGTACTGACTGTTAAACTGTAGCTTCGCGAAAACAC CTTACATGGCAAGGCCGTACAACCTCCGCCACCTCTGACCTCTTTTGTCCACTCCCCC CCGCCCCGNGGACGACCATACCGCCCCGCCAGCCTCCCGGCGACGCTTGGCTTAATTC ACCCGTACCGCCCTGGCGCGCCTCGCTCCCTAACCGCGTATACCCTCGGCGCGCTCAT CGCTCCCGACTGGCTAGTGTG</p>
Restriction Sites:	NotI-NotI
ACCN:	NM_178042
Insert Size:	1950 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:

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_178042.1](#), [NP_829888.1](#)

RefSeq Size: 1925 bp

RefSeq ORF: 1164 bp

Locus ID: 86

UniProt ID: [O96019](#)

Cytogenetics: 3q26.33

Protein Families: Druggable Genome, Transcription Factors

Gene Summary: This gene encodes a family member of actin-related proteins (ARPs), which share significant amino acid sequence identity to conventional actins. Both actins and ARPs have an actin fold, which is an ATP-binding cleft, as a common feature. The ARPs are involved in diverse cellular processes, including vesicular transport, spindle orientation, nuclear migration and chromatin remodeling. This gene encodes a 53 kDa subunit protein of the BAF (BRG1/brm-associated factor) complex in mammals, which is functionally related to SWI/SNF complex in *S. cerevisiae* and *Drosophila*; the latter is thought to facilitate transcriptional activation of specific genes by antagonizing chromatin-mediated transcriptional repression. Together with beta-actin, it is required for maximal ATPase activity of BRG1, and for the association of the BAF complex with chromatin/matrix. Three transcript variants that encode two different protein isoforms have been described. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (3) uses an alternate splice site in the 5' coding region that results in the use of a downstream start codon, compared to variant 1. Variants 2 and 3 both encode isoform b, which has a shorter N-terminus when compared to isoform a. This variant is also known as Nbeta3 and isoform b is also known as hArpNbetaS. Isoform b is found mostly in the cytoplasm.