

Product datasheet for RC201689

BAF53A (ACTL6A) (NM_177989) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BAF53A (ACTL6A) (NM_177989) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	BAF53A
Synonyms:	ACTL6; Arp4; ARPN-BETA; BAF53A; INO80K
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201689 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGTGGTAGAAAGAGATGACGGAAGCACATTAATGAAATAGATGGCGATAAAGGCAAACAAGCGGTC
CCACCTACTACATAGATACTAATGCTCTGCGTGTCCGAGGGAGAATATGGAGGCCATTTACCTCTAAA
AAATGGGATGGTTGAAGACTGGGATAGTTTCCAAGCTATTTGGATCATACTACAAAATGCATGTCAA
TCAGAAGCCAGTCCATCCTGTTCTCATGTCAGAGGCACCGTGAATACTAGAGCAAAGAGAGAGAAA
TGACAGAGTTAATGTTTGAACACTACAACATCCCTGCCTTCTTCTTTGCAAACTGCAGTTTTGACAGC
ATTTGCTAATGGTCGTTCTACTGGGCTGATTTTGGACAGTGGAGCCACTCATACCACTGCAATCCAGTC
CACGATGGCTATGTCCTTCAACAAGGCATTGTGAAATCCCTCTTCTGCTGGAGACTTTATTACTATGCAGT
GCAGAGAACTCTTCCAAGAAATGAATTTGAATTGGTTCCCTCATATATGATTGCATCAAAAAGAGCTGT
TCGTGAAGGATCTCCAGCAAAGTGGAAAAGAAAAGAGAAGTTGCCTCAGGTTACGAGGCTTTGGCACAAT
TATATGTGAATTGTGTTATCCAGGATTTTCAAGCTTCGGTACTTCAAGTGTGATTTCACTTATGATG
ACAAGTGGCTGCACAGATGCCAACTGTTCAATTGAATCCCAATGGCTACAATTGTGATTTTGGTGC
AGAGCGGCTAAAGATCCAGAAGGATTTTACCCTTCCAATGTAAAGGGTTATCAGGAACACAATG
TTAGGAGTCAGTCATGTTGTCACCACAAGTGTGGGATGTGATATTGATATCAGACCAGTCTCTATG
GCAGTGAATAGTGGCAGGAGGAAACACACTAATACAGAGTTTTACTGACAGGTTGAATAGAGAGCTGTC
TCAGAAAACCTCCTCAAGTATGCGGTTGAAATTGATTGCAAATAATAACAAGTGAACGGAGGTTTAGC
TCATGGATTGGCGGCTCCATTCTAGCCTCTTTGGGTACCTTTCAACAGATGTGGATTTCCAAGCAAGAAT
ATGAAGAAGGAGGGAAGCAGTGTGTAGAAAGAAAATGCCCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC201689 protein sequence
Red=Cloning site Green=Tags(s)

MVVERDDGSTLMEIDGDKGKGGPTYIDTALRVPRENMEAISPLKNGMVEDWDSFQAILDHTYKMHVK
 SEASLHPVLMSEAPWNTRAKREKLTLMFEHYNIPAFFLCKTAVLTAFANGRSTGLILDSGATHTTAIPV
 HDGYVLQQGIVKSPLAGDFITMQCRELFQEMNIELVPPYMIASKEAVREGSPANWKRKEKLPQVTRSWHN
 YMCNCVIQDFQASVQLVSDSTYDEQVAAQMPTVHYEFPNGYNCDFGAERLKIPEGLFDPSNVKGLSGNTM
 LGVSHVVTTSVGMCDIDIRPGLYGSVIVAGGNTLIQSFTDRLNRELSQKTPPSMRLKLIANNTTVERRFS
 SWIGGSILASLGTFFQMWISKQEYEEGGKQCVERKCP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6541_c12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_177989

ORF Size: 1161 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_177989.1](#), [NP_817126.1](#)

RefSeq Size: 1764 bp

RefSeq ORF: 1164 bp

Locus ID: 86

UniProt ID: [O96019](#)

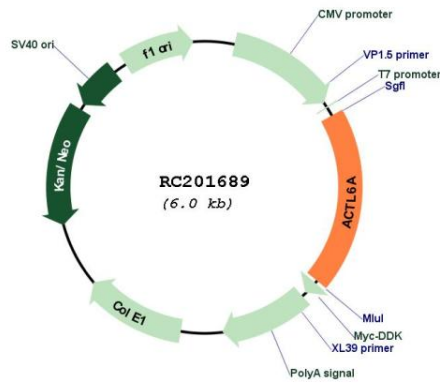
Cytogenetics: 3q26.33

Protein Families: Druggable Genome, Transcription Factors

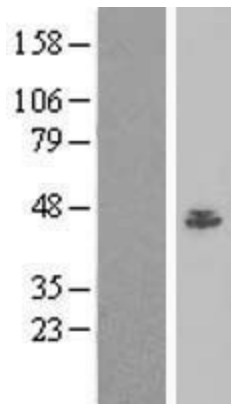
MW: 43.2 kDa

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]

Product images:



Circular map for RC201689



Western blot validation of overexpression lysate (Cat# [LY406030]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC205341] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).