

Product datasheet for **RG217977**

BAF53A (ACTL6A) (NM_004301) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BAF53A (ACTL6A) (NM_004301) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	BAF53A
Synonyms:	ACTL6; Arp4; ARPN-BETA; BAF53A; INO80K
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG217977 representing NM_004301 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTGGTAGAAAGAGATGACGGAAGCACATTAATGGAATAGATGGCGATAAAGGCAAACAAGCGGTC
CCACCTACTACATAGATACTAATGCTCTGCGTGTCCGAGGGAGAATATGGAGGCCATTTACCTCTAAA
AAATGGGATGGTTGAAGACTGGGATAGTTTCCAAGCTATTTGGATCATACTACAAAATGCATGTCAA
TCAGAAGCCAGTCTCCATCCTGTTCTCATGTGAGAGCCACCGTGAATACTAGAGCAAAGAGAGAGAAA
TGACAGAGTTAATGTTTGAACACTACAACATCCCTGCCTTCTTCTTTGCAAACTGCAGTTTTGACAGC
ATTTGCTAATGGTCGTTCTACTGGGCTGATTTGGACAGTGGAGCCACTCATACCACTGCAATTCAGTC
CACGATGGCTATGTCCTTCAACAAGGCATTGTGAAATCCCTCTTCTGCTGGAGACTTTATTACTATGCAGT
GCAGAGAACTCTTCCAAGAAATGAATTTGAATTGGTTCCCTCATATATGATTGCAACAAAAGAAGCTGT
TCGTGAAGGATCTCCAGCAAAGTGGAAAAGAAAAGAGAAGTTGCCTCAGGTTACGAGGCTTTGGCACAAT
TATATGTGTAATTGTGTTATCCAGGATTTCAAGCTTCGGTACTTCAAGTGTGATTTCACTTATGATG
ACAAGTGGCTGCACAGATGCCAAGTTCATTATGAATCCCAATGGCTACAATTGTGATTTGGTGC
AGAGCGGCTAAAGATCCAGAAGGATTTTACCCTTCCAATGTAAGGGGTTATCAGGAACACAATG
TTAGGATCAGTCATGTTGTCACCACAAGTGTGGGATGTGATATTGACATCAGACCAGTCTCTATG
GCAGTGAATAGTGGCAGGAGGAAACACACTAATACAGAGTTTTACTGACAGGTTGAATAGAGAGCTGTC
TCAAAAACTCCTCCAAGTATGCGGTTGAAATTGATTGCAATAATAACAAGTGAACGAGGTTTAGC
TCATGGATTGGCGGCTCCATTCTAGCCTCTTGGGTACCTTTCAACAGATGTGGATTTCCAAGCAAGAAT
ATGAAGAAGGAGGGAAGCAGTGTGTAGAAAGAAAATGCCCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG217977 representing NM_004301
 Red=Cloning site Green=Tags(s)

MVVERDDGSTLMEIDGDKGKQGPTYYIDTNALRVPRENMEAISPLKNGMVEDWDSFQAILDHTYKMHVK
 SEASLHPVLMSEAPWNTRAKREKLTLMFEHYNIPAFFLCKTAVLTAfangrstGLILDsgatHTTAIPV
 HDGYVLQGGIVKSPLAGDFITMQCRELFQEMNIELVPPYMIATKEAVREGSPANWKRKEKLPQVTRSWHN
 YMCNCVIQDFQASVLQVSDSTYDEQVAAQMPTVHYEFPNGYNCDFGAERLKIPEGLFDPSNVKGLSGNTM
 LGVSHVVTTSVGMCDIDIRPGLYGSVIVAGGNTLIQSFTDRLNRELSQKTPPSMRLKLIANNTTVERRFS
 SWIGGSILASLGTFFQMWISKQYEYEGGKQCVERKCP

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004301

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.

RefSeq: [NM_004301.2](#), [NP_004292.1](#)

RefSeq Size: 1879 bp

RefSeq ORF: 1290 bp

Locus ID: 86

UniProt ID: [O96019](#)

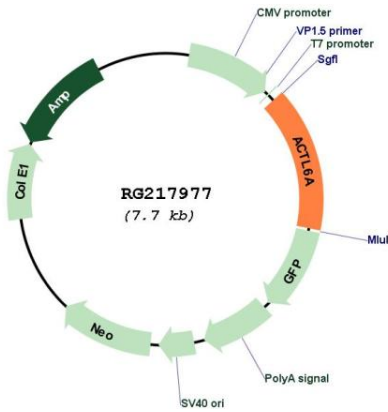
Cytogenetics: 3q26.33

Domains: ACTIN

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]

Product images:



Circular map for RG217977