

## Product datasheet for **RG205341**

### **BAF53A (ACTL6A) (NM\_178042) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** BAF53A (ACTL6A) (NM\_178042) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** ACTL6A  
**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:** >RG205341 representing NM\_178042  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAGCGGCGCGTGTACGGGGGAGATGAAGTTGGAGCCCTTGTTTTGGACATTGGATCCTATACTGTGA  
 GAGCTGGTTATGCTGGTGGAGACTGCCCAAGGTGGATTTTCTACAGCTATTGGTATGGTGTAGAAAAG  
 AGATGACGGAAGCACATTAATGGAATAGATGGCGATAAAGGCAAACAAGGCGGTCCACCTACTACATA  
 GATACTAATGCTCTCGTGTCCGAGGGAGAATATGGAGGCCATTTACCTCTAAAAATGGGATGGTTG  
 AAGACTGGGATAGTTTCCAAGCTATTTTGGATCATACCTACAAAATGCATGTCAAATCAGAAGCCAGTCT  
 CCATCCTGTTCTCATGTGACAGGACCCGTGGAATACTAGAGCAAAGAGAGAAAAGTACAGAGGTTAATG  
 TTTGAACACTACAACATCCCTGCCTTCTCCTTTGCAAAAAGTGCAGTTTTGACAGCATTTGCTAATGGTC  
 GTTCTACTGGGCTGATTTTGGACAGTGGAGCCACTCATACCCTGCAATTCAGTCCACGATGGCTATGT  
 CCTTCAACAAGGCATTGTGAAATCCCCTCTTGGTGGAGACTTTTACTATGCAGTGCAGAGAAGCTTTC  
 CAAGAAATGAATATTGAATTGGTTCCCTCATATATGATTGCATCAAAAAGAAGCTGTTTCGTGAAGGATCTC  
 CAGCAAAGTGGAAAAGAAAAGAGAAGTTGCCTCAGGTTACGAGGCTTGGCACAATTATATGTGTAATTG  
 TGTTATCCAGGATTTTCAAGCTTCGGTACTTCAAGTGTGAGTCAACTTATGATGAACAAGTGGCTGCA  
 CAGATGCCAAGTGTTCATTATGAATCCCAATGGTACAATTGTGATTTTGGTGCAGAGCGGCTAAAGA  
 TTCCAGAAGGATTATTTGACCTTCCAATGTAAGGGGTTATCAGGAAACACAATGTTAGGAGTCAGTCA  
 TGTTGTCAACCACAAGTGTGGGATGTGTGATATTGACATCAGACCAGGTCTCTATGGCAGTGAATAGTG  
 GCAGGAGGAAACACACTAATACAGAGTTTTACTGACAGGTTGAATAGAGAGCTGTCTCAGAAAAGCTCTC  
 CAAGTATGCGGTTGAAATTGATTGCAAATAATACAACAGTGAACGGAGGTTTAGCTCATGGATTGGCGG  
 CTCCATTCTAGCCTCTTTGGGTACCTTTCAACAGATGTGGATTTCCAAGCAAGAATATGAAGAAGGAGGG  
 AAGCAGTGTGTAGAAAAGAAAATGCCCT

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA



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**Protein Sequence:** >RG205341 representing NM\_178042  
 Red=Cloning site Green=Tags(s)

MSGGVYGGDEVGALVFDIGSYTVRAGYAGEDCPKVDFTPTAIGMVVERDDGSTLMEIDGDKGKQGGPTYI  
 DTNALRVPRENMEAISPLKNGMVEDWDSFQAILDHTYKMHVKSEASLHPVLMSEAPWNTRAKREKLT  
 FEHYNIPAFFLCKTAVLTAFANGRSTGLILDGATHHTTAIPVHDGYVLQGGIVKSPLAGDFITMQCRELF  
 QEMNIELVPPYMIASKEAVREGSPANWKRKEKLPQVTRSWHNYMCNCVIQDFQASVLQVSDSTYDEQVAA  
 QMPTVHYEFPNGYNCDFGAERLKIPEGLFDPSNVKGLSGNTMLGVSHVVTTSVGMCDIDIRPLYGSVIV  
 AGGNTLIQSFTDRLNRELSQKTPPSMRCLKLIANNTTVERRFSSWIGGSILASLGTFFQMMWISKQEYEEGG  
 KQCVERKCP

TRTRPLE – GFP Tag – V

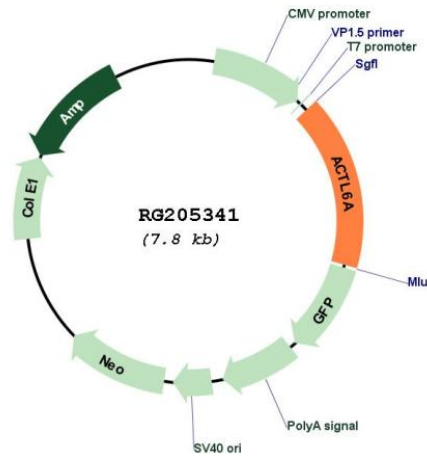
**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:**

NM\_178042

<b>ORF Size:</b>	1161 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_178042.2</a> , <a href="#">NP_829888.1</a>
<b>RefSeq Size:</b>	1956 bp
<b>RefSeq ORF:</b>	1164 bp
<b>Locus ID:</b>	86
<b>UniProt ID:</b>	<a href="#">O96019</a>
<b>Cytogenetics:</b>	3q26.33
<b>Protein Families:</b>	Druggable Genome, Transcription Factors
<b>Gene Summary:</b>	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 <i>S. cerevisiae</i> and <i>Drosophila</i> ; 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]