

Product datasheet for **RG205558**

ACTL7A (NM_006687) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	ACTL7A
Mammalian Cell	Neomycin
Selection:	
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence: >RG205558 representing NM_006687
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGC**

ATGTGGGCTCCACCAGCAGCAATCATGGGGATGGGCCACCAAGAAGGTGGGCAACCAGGCCCTCTGC
AGACACAGGCCCTCCAGACTGCCTCTTTAAGGGATGGCCGCGCAAGCGGGCCGTGTGGTCCGCCATAC
GAGTTTCAGAGCCACAAGAACCTACTGAATCAAAGGCAGCCAAGGAGAGGCCAAGCAGGAGGTGACCAAA
GCAGTGGTCTGTGGCACTGGCACTGGTACTGTAATGTGGCTTTGCCGGCCTGCCAAGACCCACCCACA
AGATCTCAACAACGGTGGGCAAGCCCTACATGGAGACCGCCAAGACTGGGGATAATCGCAAGGAGACATT
CGTGGGCGAGGAATCAACAACACAACGTTTCATCTCAAGCTGGTTAACCTCTGCGACATGGCATCATC
GTGGACTGGGATACAGTGCAGGATATCTGGGAATATCTCTCCGACAAGAGATGAAGATCGCCCCGGAGG
AGCATCGGTCTTGGTTTCAGACCCGCCACTGAGCCACACACCAACAGAGAGAAATATGCTGAAATGCT
GTTTGAAGCCTTCAACACCCCTGCAATGCACATCGCCTACAGTCGCGCCTGTCCATGTACTCTATGGA
AGGACCTCCGGCTGGTGGTGGAGGTGGGCCATGGCGTGTCTACGTGGTCCCATCTACGAGGGTTATC
CTTTGCCCAGCATACCGGAAGGCTGGACTACGCGGGCTCTGACCTGACAGCCTACCTGCTGGGCCTGCT
GAACAGTGCGGGAACGAATTCACCCAGGACCATGAGGATCGTGGAGGACATCAAGAAGAAATGCTGC
TTTGTGGCCCTGGATCCATTGAGGAGAAGAAAGTCCCTCTCAGTGAGCATACGATCCGCTACGTGCTGC
CGGATGGGAAGGAGATTACGCTGTGCCAGGAACGGTTCCTCTGCTCGGAGATGTTCTCAAGCCATCTCT
CATCAAGTCCATGCAGCTGGGCTCCACACCCAAACCGTGTCTGCTTAACAAGTGTGACATCGCCCTC
AAACGGGACCTCATGGGAACATCTGCTCTGCGGGGCGAGCAGATGCTCAGTGGCTTCCCTAACCGTCTC
TGCAGAAGGAGCTAAGCAGCATGTGTCCCAATGACACCCGCGAGGTAAACGTGCTGCCTGAAAGAGACAG
TGCCGTGTGACCGGTGGCTCCATCTGGCCTCACTTCAGGTTTCCAACATTATGGGTCCACCGCTTT
GAGTACGAGGAACACGGCCTTCTTCTCTACAGAAGGTGCTTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



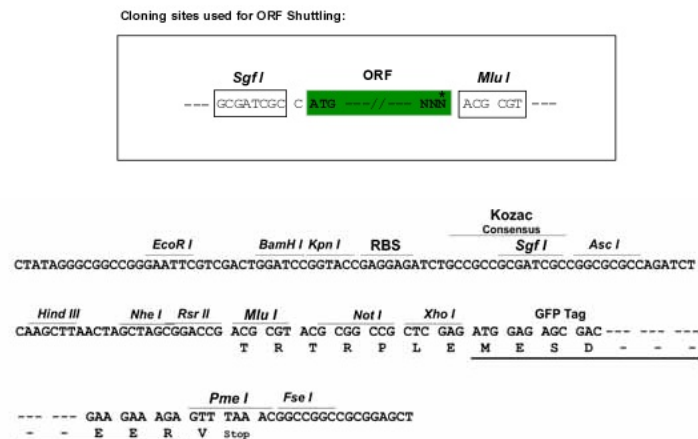
Protein Sequence: >RG205558 representing NM_006687
Red=Cloning site Green=Tags(s)

MWAPPAAIMGDGPTKKVGNQAPLQTQALQTASLRDGPAPKRAVVRHTSSEPQEPTESKAAKERPKQEVTK
AVVVLDGTGYCKCGFAGLPRPTHKISTTVGKPYMETAKTGDNRKETFGQELNNTNVHLKLVNPLRHGII
VDWDTVQDIWEYLFQEMKIAPEEHAVLVSDPPLSPHTNREKYAEMLEAFNTPAMHIAYSRLSMYSYG
RTSGLVVEVGHGVSYYVPIYEGYPLPSITGRLDYAGSDLTAYLLGLLNSAGNEFTQDQMGIVEDIKKKCC
FVALDPIEEKKVPLSEHTIRYVLPDKEIQLCQERFLCSEMFKPSLIKSMQLGLHTQTVSCLNKCDIAL
KRDLMGNILLCGGSTMLSGFPNRLQKELSSMCPNDTPQVNVLPERDSAVWTGGSILASLQGFQPLWVHRF
EYEEHGPFFLYRRCF

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006687

ORF Size: 1305 bp

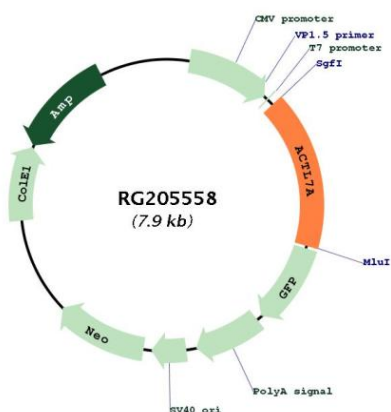
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	<u>NM_006687.2, NP_006678.1</u>
RefSeq Size:	1433 bp
RefSeq ORF:	1308 bp
Locus ID:	10881
UniProt ID:	<u>Q9Y6I5</u>
Cytogenetics:	9q31.3
Gene Summary:	The protein encoded by this gene is a member of a family 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 (ACTL7A), and related gene, ACTL7B, are intronless, and are located approximately 4 kb apart in a head-to-head orientation within the familial dysautonomia candidate region on 9q31. Based on mutational analysis of the ACTL7A gene in patients with this disorder, it was concluded that it is unlikely to be involved in the pathogenesis of dysautonomia. The ACTL7A gene is expressed in a wide variety of adult tissues, however, its exact function is not known. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG205558