

Product datasheet for **RG203643**

beta Actin (ACTB) (NM_001101) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | beta Actin (ACTB) (NM_001101) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | beta Actin |
| Synonyms: | BRWS1; PS1TP5BP1 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |
| ORF Nucleotide Sequence: | >RG203643 representing NM_001101 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATGATGATATCGCCGCGCTCGTCGTCGACAAACGGCTCCGGCATGTGCAAGGCCGGCTTCGCGGGCG
ACGATGCCCCCGGGCCGTCTTCCCTCCATCGTGGGGCGCCCCAGGCACCAGGGCGTGATGGTGGGCAT
GGGTCAGAAGGATTCTATGTGGCGCAGAGGCCAGAGCAAGAGAGGCATCCTCACCTGAAGTACCC
ATCGAGCACGGCATCGTACCAACTGGGACGACATGGAGAAAATCTGGCACCACACCTTCTACAATGAGC
TGCGTGTGGCTCCCGAGGAGCACCCGTGCTGCTGACCGAGGCCCCCTGAACCCAAGCCAACCGCGA
GAAGATGACCCAGATCATGTTTGAGACCTCAACACCCAGCCATGTACGTTGCTATCCAGGCTGTGCTA
TCCTGTACGCCCTCGGCCGTACCACTGGCATCGTGATGGACTCCGGTGACGGGGTACCCACACTGTGC
CCATCTACGAGGGGATGCCCTCCCCATGCCATCCTGCGTCTGGACCTGGCTGGCCGGGACCTGACTGA
CTACCTCATGAAGATCCTCACCGAGCGCGGCTACAGCTTACCACCACGGCCGAGCGGAAATCGTGCGT
GACATTAAGGAGAAGCTGTGCTACGTGCGCCTGGACTTCGAGCAAGAGATGGCCACGGCTGCTTCCAGCT
CCTCCCTGGAGAAGACTACGAGCTGCCTGACGGCCAGGTCATCACCATTGGCAATGAGCGGTTCCGCTG
CCCTGAGGCACTTCCAGCCTCCTTCTGGGCATGGAGTCTGTGGCATCCACGAACTACCTTCAAC
TCCATCATGAAGTGTGACGTGGACATCCGCAAAGACCTGTACGCCAACACAGTGTGTGGCGGCACCA
CCATGTACCCTGGCATTGCCGACAGGATGCAGAAGGAGATCACTGCCCTGGCACCCAGCACAAATGAAGT
CAAGATCATTGCTCCTCTGAGCGCAAGTACTCCGTGTGGATCGCGGGCTCCATCCTGGCCTCGCTGTCC
ACCTTCCAGCAGATGTGGATCAGCAAGCAGGAGTATGACGAGTCCGGCCCTCCATCGTCCACCGCAAAT
GCTTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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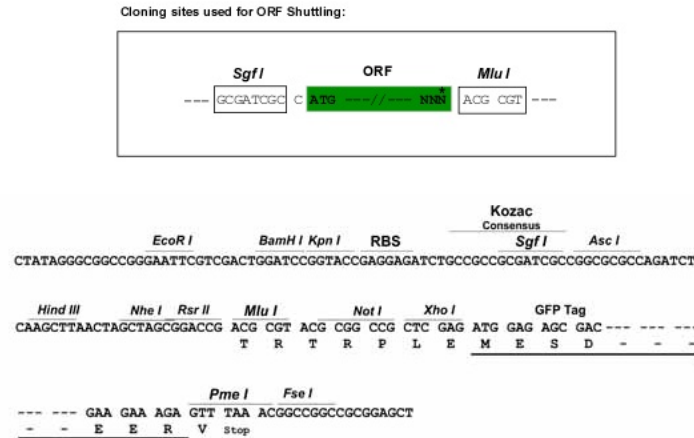
Protein Sequence: >RG203643 representing NM_001101
 Red=Cloning site Green=Tags(s)

MDDDIAALVVDNGSGMCKAGFAGDDAPRAVFPISIVGRPRHQGMVMGMQKDSYVGDEAQSKRGILTLYKYP
 IEHGIVTNWDDMEKIWHHTFYNELRVAPEEHPVLLTEAPLNPKANREKMTQIMFETFNTPAMYVAIQAVL
 SLYASGRTTGIVMDSGDVTHTVPIYEGYALPHAILRLDLAGRDLTDYLMKILTERGYSFTTTAEREIVR
 DIKEKLCYVALDFEQEMATAASSSSLEKSYELPDGQVITIGNERFRCPEALFQPSFLGMESCGIHETTFN
 SIMKCDVDIRKDYANTVLSGGTTMYPGIADRMQKEITALAPSTMKIKIIAPPERKYSVWIGGSILASLS
 TFQQMWISKQEYDESGPSIVHRKCF

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001101

ORF Size: 1125 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_001101.5](#)

RefSeq Size: 1793 bp

RefSeq ORF: 1128 bp

Locus ID: 60

UniProt ID: [P60709](#)

Cytogenetics: 7p22.1

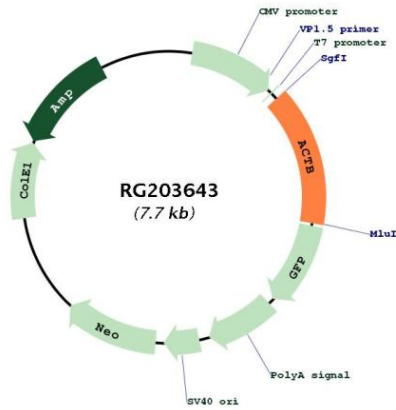
Domains: ACTIN

Protein Families: ES Cell Differentiation/IPS

Protein Pathways: Adherens junction, Arrhythmogenic right ventricular cardiomyopathy (ARVC), Dilated cardiomyopathy, Focal adhesion, Hypertrophic cardiomyopathy (HCM), Leukocyte transendothelial migration, Pathogenic Escherichia coli infection, Regulation of actin cytoskeleton, Tight junction, Vibrio cholerae infection, Viral myocarditis

Gene Summary: This gene encodes one of six different actin proteins. Actins are highly conserved proteins that are involved in cell motility, structure, integrity, and intercellular signaling. The encoded protein is a major constituent of the contractile apparatus and one of the two nonmuscle cytoskeletal actins that are ubiquitously expressed. Mutations in this gene cause Baraitser-Winter syndrome 1, which is characterized by intellectual disability with a distinctive facial appearance in human patients. Numerous pseudogenes of this gene have been identified throughout the human genome. [provided by RefSeq, Aug 2017]

Product images:



Circular map for RG203643