

Product datasheet for **RG230127**

ARHGEF9 (NM_001173479) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ARHGEF9 (NM_001173479) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ARHGEF9
Synonyms:	COLLYBISTIN; DEE8; EIEE8; HPEM-2; PEM-2; PEM2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG230127 representing NM_001173479
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGCAGTGGATAAGGGGCGGATCGGAATGCTCTGGTGAACCAGGAGGATGAGGTGGAGGAGGGGCCCA
 CGGATGTGCAGAACGGACACCTGGACCCCAATTCAGACTGCCTCTGTCTGGGGCGGCCACTACAGAACCG
 GGACCAGATGCGGGCCAATGTCAATGAGATAATGAGCACTGAGCGTCACTACATCAAGCACCTCAAG
 GATATTTGTGAGGGCTATCTGAAGCAGTGCCGGAAGAGAAGGGACATGTTCACTGACGAGCAACTGAAGG
 TAATCTTTGGGAACATTGAAGATATCTACAGATTCAGATGGGCTTTGTGAGAGACCTGGAGAAACAGTA
 TAACAATGATGACCCACCTCAGCGAGATAGGACCTGCTTCTAGAGCACCAAGATGGATTCTGGATA
 TACTCTGAGTATTGTAACAACCACCTGGATGCTTGCATGGAGCTCTCAAAGTATGAAGGACAGCCGCT
 ACCAGCACTTCTTTGAGGCTGTGCTTCTGCAGCAGATGATTGACATTGCTATCGATGGTTTCTTTT
 GACTCCAGTGCAGAAGATCTGCAAGTATCCCTTACAGTTGGCTGAGCTCCTAAAGTATACTGCCAAGAC
 CACAGTACTACAGGTATGTGGCAGCTGCTTTGGCTGTCATGAGAAATGTGACTACGAGATCAACGAAC
 GCAAGCGACGTTTAGAGAATATTGACAAGATTGCTCAGTGGCAGGCTTCTGTCCTAGACTGGGAGGGCGA
 GGACATCCTAGACAGGAGCTCGGAGCTGATCTACACTGGGGAGATGGCCTGGATCTACCAGCCCTACGGC
 CGCAACCAGCAGCGGGTCTTCTTCTGTTTGACCACCAGATGGTCTCTGCAAGAAGGACCTAATCCGGA
 GAGACATCCTGTACTACAAAGGCCCGATTGACATGGATAAATATGAGGTAGTTGACATTGAGGATGGCAG
 AGATGATGACTTCAATGTGAGCATGAAGAATGCCTTTAAGCTTCAACAAGGAGACTGAGGAGATACAT
 CTGTTCTTTGCCAAGAAGCTGGAGGAAAAAATACGCTGGCTCAGGGCTTTCAGAGAAGAGAGGAAAAATGG
 TACAGGAAGATGAAAAAATTTGGCTTTGAAATTTCTGAAAAACAGAAAGGCAGGCTGCAATGACTGTGAG
 AAAAGTCCCTAAGCAAAAAGGTGTCAACTCTGCCCGCTCAGTTCTCCTTCTACCACCCACCGCAGGAC
 CCGTTAAACCACGGCCAGTACCTGGTCCCGACGGCATCGCTCAGTCGCAGGTCTTTGAGTTCACCGAAC
 CCAAGCGCAGCCAGTACCATTCTGGCAAACTTCAGCAGGTTAACCCCTTCAAAAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG230127 representing NM_001173479
 Red=Cloning site Green=Tags(s)

MQWIRGGSGMLWVNQEDEVEEGPSDVQNGHLDPNSDCLCLGRPLQNRDQMRANVINEIMSTERHYIKHLK
 DICEGYLKQCRKRRDMFSDEQLKVIFGNIEDIYRFQMGFVRDLEKQYNNDDPHLSEIGPCFLEHQDGFWI
 YSEYCNHLDACMELSKLMKDSRYQHFFACRLLQQMIDIAIDGFLLTPVQKICKYPLQLAELLKYTAQD
 HSDYRYVAAALAVMRNVTQQINERKRLENIDKIAQWQASVLDWEGEDILDRSSELIYTGEMAWIYQPYG
 RNQQRVFFLFDHQMVLCKKDLIRRDILYYKGRIDMDKYEVDIEDGRDDDFNVSMKNAFKLHNKETEIEH
 LFFAKKLEEKIRWLRAFREERKMVQEDEKIGFEISENQKQQAAMTVRKVPKQKGVNSARVPPSYPPPQD
 PLNHGQYLVPDGIASQVFEFTEPKRSQSPFWQNF SRLTPFKK

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_001173479

ORF Size: 1389 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_001173479.2](#)

RefSeq Size: 4853 bp

RefSeq ORF: 1392 bp

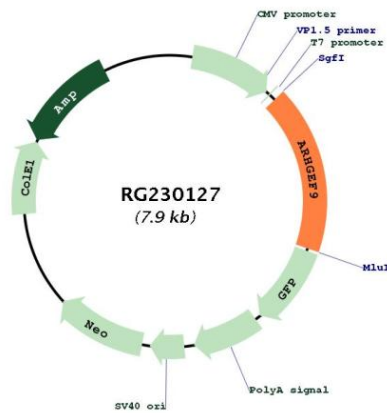
Locus ID: 23229

UniProt ID: [O43307](#)

Cytogenetics: Xq11.1

Gene Summary:

The protein encoded by this gene is a Rho-like GTPase that switches between the active (GTP-bound) state and inactive (GDP-bound) state to regulate CDC42 and other genes. This brain-specific protein also acts as an adaptor protein for the recruitment of gephyrin and together these proteins facilitate receptor recruitment in GABAergic and glycinergic synapses. Defects in this gene are the cause of startle disease with epilepsy (STHEE), also known as hyperekplexia with epilepsy, as well as several other types of cognitive disability. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2017]

Product images:

Circular map for RG230127