OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC230127

ARHGEF9 (NM_001173479) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ARHGEF9 (NM_001173479) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ARHGEF9
Synonyms:	COLLYBISTIN; DEE8; EIEE8; HPEM-2; PEM-2; PEM2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC230127 representing NM_001173479
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCAGTGGATAAGGGGCGGATCGGGAATGCTCTGGGTGAACCAGGAGGATGAGGTGGAGGAGGGGCCCA
GCGATGTGCAGAACGGACACCTGGACCCCAATTCAGACTGCCTCTGTCTGGGGCGGCCACTACAGAACCG
GGACCAGATGCGGGCCAATGTCATCAATGAGATAATGAGCACTGAGCGTCACTACATCAAGCACCTCAAG
GATATTTGTGAGGGCTATCTGAAGCAGTGCCGGAAGAGAAGGGACATGTTCAGTGACGAGCAACTGAAGG
TAATCTTTGGGAACATTGAAGATATCTACAGATTTCAGATGGGCTTTGTGAGAGACCTGGAGAAACAGTA
TAACAATGATGACCCCCACCTCAGCGAGATAGGACCCTGCTTCCTAGAGCACCAAGATGGATTCTGGATA
TACTCTGAGTATTGTAACAACCACCTGGATGCTTGCATGGAGCTCTCCAAACTGATGAAGGACAGCCGCT
ACCAGCACTTCTTTGAGGCCTGTCGCCTCTTGCAGCAGATGATTGACATTGCTATCGATGGTTTCCTTTT
GACTCCAGTGCAGAAGATCTGCAAGTATCCCTTACAGTTGGCTGAGCTCCTAAAGTATACTGCCCAAGAC
CACAGTGACTACAGGTATGTGGCAGCTGCTTTGGCTGTCATGAGAAATGTGACTCAGCAGATCAACGAAC
GCAAGCGACGTTTAGAGAATATTGACAAGATTGCTCAGTGGCAGGCTTCTGTCCTAGACTGGGAGGGCGA
GGACATCCTAGACAGGAGCTCGGAGCTGATCTACACTGGGGAGATGGCCTGGATCTACCAGCCCTACGGC
CGCAACCAGCAGCGGGTCTTCTTCCTGTTTGACCACCAGATGGTCCTCTGCAAGAAGGACCTAATCCGGA
GAGACATCCTGTACTACAAAGGCCGCATTGACATGGATAAATATGAGGTAGTTGACATTGAGGATGGCAG
AGATGATGACTTCAATGTCAGCATGAAGAATGCCTTTAAGCTTCACAACAAGGAGACTGAGGAGATACAT
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TACAGGAAGATGAAAAAATTGGCTTTGAAATTTCTGAAAACCAGAAGAGGCAGGCTGCAATGACTGTGAG
AAAAGTCCCTAAGCAAAAAGGTGTCAACTCTGCCCGCTCAGTTCCTCCTTCCTACCCACCACCGCAGGAC
CCGTTAAACCACGGCCAGTACCTGGTCCCCGACGGCATCGCTCAGTCGCAGGTCTTTGAGTTCACCGAAC
CCAAGCGCAGCCAGTCACCATTCTGGCAAAACTTCAGCAGGTTAACCCCCTTCAAAAAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC230127 representing NM_001173479
Red=Cloning site Green=Tags(s)

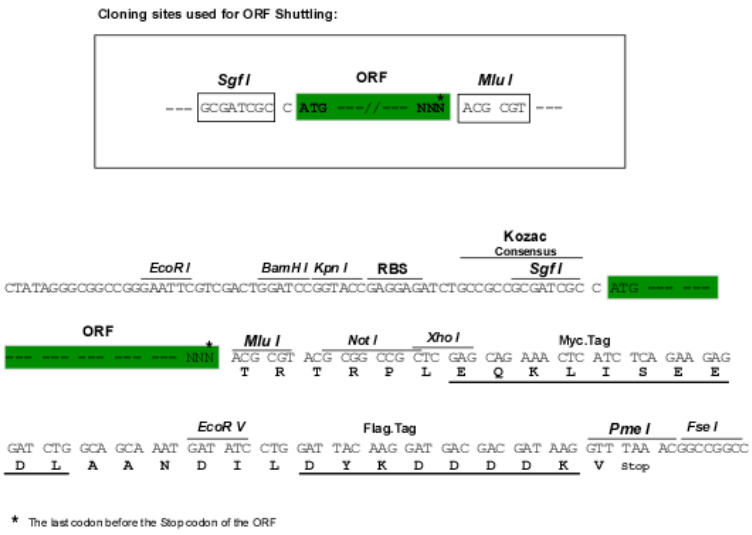
MQWIRGGSGMLWVNQEDEVEEGPSDVQNGHLDPNSDCLCLGRPLQNRDQMRANVINEIMSTERHYIKHLK
DICEGYLKQCRKRRDMFSDEQLKVIFGNIEDIYRFQMGFVRDLEKQYNNDDPHLSEIGPCFLEHQDGFWI
YSEYCNNHLDACMELSKLMKDSRYQHFFEACRLLQQMIDIAIDGFLLTPVQKICKYPLQLAELLKYTAQD
HSDYRYVAAALAVMRNVTQQINERKRRLENIDKIAQWQASVLDWEGEDILDRSSELIYTGEMAWIYQPYG
RNQQRVFFLFDHQMVLCKKDLIRRDILYYKGRIDMDKYEVVDIEDGRDDDFNVSMKNAFKLHNKETEEIH
LFFAKKLEEKIRWLRAFREERKMVQEDEKIGFEISENQKRQAAMTVRKVPKQKGVNSARSVPPSYPPPQD
PLNHGQYLVPDGIAQSQVFEFTEPKRSQSPFWQNFSRLTPFKK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8061_f06.zip

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 ORF: 1392 bp

Locus ID: 23229

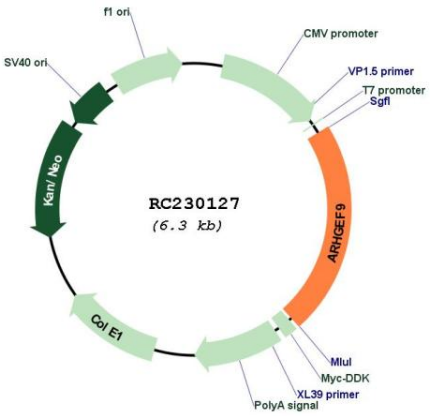
UniProt ID: O43307

Cytogenetics: Xq11.1

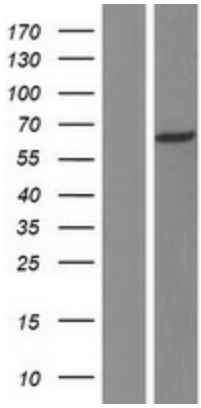
MW: 55.4 kDa

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 rececceptor recruitement in GABAnergic 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 RC230127



Western blot validation of overexpression lysate (Cat# [LY433127]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC230127 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).