

Product datasheet for **RC230035**

ARHGEF9 (NM_001173480) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ARHGEF9 (NM_001173480) 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)



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ORF Nucleotide Sequence:

>RC230035 representing NM_001173480
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGC**C

ATGACGTTGCTGATCACTGGAGATTCCATCGTTAGTGCTGAGGCAGTATGGGATCACGTACCATGGCCA
 ACCGGGAGTTGGCATTTAAAGCTGGCGACGTCAAAAGTCTTGATGCTTCCAACAAGGATTGGTGGTG
 GGGCCAGATCGACGATGAGGAGGGATGGTTTCTGCCAGCTTTGTGAGGCTCTGGGTGAACCAAGGAGGAT
 GAGGTGGAGGAGGGGCCAGCGATGTGCAGAACGGACACCTGGACCCCAATTCAGACTGCCTCTGTCTGG
 GGCGGCCACTACAGAACCGGGACCAGATGCGGGCCAATGTCATCAATGAGATAATGAGCACTGAGCGTCA
 CTACATCAAGCACCTCAAGGATATTTGTGAGGGCTATCTGAAGCAGTGCCGGAAGAGAAGGGACATGTTT
 AGTGACGAGCAACTGAAGGTAATCTTTGGGAACATTGAAGATATCTACAGATTTAGATGGGCTTTGTGA
 GAGACCTGGAGAAACAGTATAACAATGATGACCCCACTCAGCGAGATAGGACCCTGCTTCTAGAGCA
 CCAAGATGGATTCTGGATATACTCTGAGTATTGTAACAACCACTGGATGCTTGCATGGAGCTCTCCAAA
 CTGATGAAGGACAGCCGCTACCAGCACTCTTTGAGGCCTGTGCGCTCTTGCAGCAGATGATTGACATTG
 CTATCGATGGTTTCTTTTGAAGTCCAGTGCAGAAAGATCTGCAAGTATCCCTTACAGTTGGCTGAGCTCT
 AAAGTATACTGCCAAGACCACAGTGACTACAGGTATGTGGCAGCTGCTTTGGCTGTGATGAGAAATGTG
 ACTCAGCAGATCAACGAACGCAAGCGACGTTTAGAGAATATTGACAAGATTGCTCAGTGGCAGGCTTCTG
 TCCTAGACTGGGAGGGCGAGGACATCCTAGACAGGAGCTCGGAGCTGATCTACACTGGGAGATGGCCTG
 GATCTACCAGCCCTACGGCCGCAACAGCAGCGGGTCTTCTTCTGTTTGACCAACAGATGGTCTCTGCTG
 AAGAAGGACCTAATCCGAGAGACATCCTGTACTACAAAGGCCGATTGACATGGATAAATATGAGGTAG
 TTGACATTGAGGATGGCAGAGATGACTTCAATGTCAGCATGAAGAATGCCTTTAAGCTTCACAACAA
 GGAGACTGAGGAGATACATCTGTTCTTTGCCAAGAAGCTGGAGGAAAAATACGCTGGCTCAGGGCTTTC
 AGAGAAGAGAGGAAAAATGGTACAGGAAGATGAAAAAATTGGCTTTGAAATTTCTGAAAACCAAGAGGC
 AGGCTGCAATGACTGTGAGAAAAGTCCCTAAGCAAAAAGGTGTCAACTCTGCCCGCTCAGTTCCTCTTTC
 CTACCCACCACCGCAGGACCCGTTAAACCACGGCCAGTACCTGGTCCCCGACGGCATCGCTCAGTCGAG
 GTCTTTGAGTTCACCGAACCACAGCGCAGCCAGTACCATTCTGGCAAACTTCAGCAGGTTAACCCCT
 TCAAAAAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC230035 representing NM_001173480
 Red=Cloning site Green=Tags(s)

MTLLITGDSIVSAEAVDHTMANRELAFKAGDVIKVLDA SNKDWGQIDDEEGWFPASFVRLWVNQED
 EVEEGPSDVQNGHLDPNSDCLCLGRPLQNRDQMRANVINEIMSTERHYIKHLKDICEGYLKQCRKRRDMF
 SDEQLKVIFGNIEDIYRFQMGFVRDLEKQYNNDDPHLSEIGPCFLEHQDGFWIYSEYCNHLDACMELSK
 LMKDSRYQHFEEACRLLQQMIDIAIDGFLTPVQKICKYPLQLAELLKYTAQDHSYRYVAAALAVMRNV
 TQQINERKRRLENIDKIAQWQASVLDWEGEDILDRSSEL IYTGEMAWIYQPYGRNQQRVFFLFDHQMVL
 KKDLIRRDILYYKGRIDMDKYEVDIEDGRDDDFNVSMKNAFKLHNKETEEIHLFFAKKLEEKIRWLRAF
 REERKMVQEDEKIGFEISENQKRAAMTVRKVPKQKGVNSARSVPPSYPPQDPLNHGQYLVPDGIASQ
 VFEFTEPKRSQSPFWQNF SRLTPFKK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001173480

ORF Size: 1548 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: [NM_001173480.1](#), [NP_001166951.1](#)

RefSeq Size: 5259 bp

RefSeq ORF: 1245 bp

Locus ID: 23229

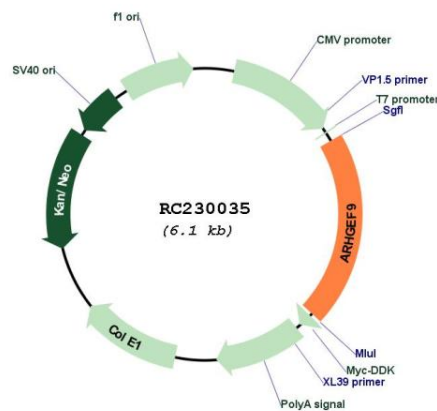
UniProt ID: O43307

Cytogenetics: Xq11.1

MW: 61 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 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 RC230035