

Product datasheet for **RG215703**

PALM2AKAP2 (NM_147150) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PALM2AKAP2 (NM_147150) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PALM2AKAP2
Synonyms:	AKAP-2; AKAP-KL; AKAP2; AKAPKL; MISP2; PALM2; PALM2-AKAP2; PRKA2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG215703 representing NM_147150 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**

ATGGCAGAGGCGGAATTGCACAAGGAAAGGCTGCAAGCCATAGCAGAAAAAGAAAGAGGCAGACTGAAA
TAGAAGGCAAGCGACAACAGCTTGACGAGCAGATACTTCTGCTGCAGCATTCCAAGTCAAAGTGCTTCG
GGAGAAATGGCTGCTGCAGGGCATACCCGCTGGAAGTCCGAAGAGGAGGAAGCCAGGAGGCGGCAGTCT
GAAGAGGATGAGTTCAGAGTCAAGCAACTTGAAGATAACATTAGAGGCTGGAGCAAGAAATACAAACGC
TAGAAAGTGAAGAGTCCCAGATATCTGCCAAAGAGCAAAATCATCTAGAGAACTGAAGGAAACAGAAAA
ATCCTTCAAGGACTTTCAGAAGGGTTTCTCCAGTACGGATGGAGATGCAGTAAATTACATTTCTCCAG
CTTCCCGACCTGCCAATCCTCTGTTACGAACAGCAGAACCATCACCTGGGCAGGACGGGACCAGCAGAG
CGGCTGGAGTCGGGTGGGAGAATGTGCTGCTAAAGGAAGGTGAGTCAGCCTCGAACGCCACAGAAACATC
CGGCCAGACATGACTATCAAGAAGCCTCCCCAGCTTTCTGAGGATGATATCTGGCTAAAAAGCGAGGGA
GACAACTATAGTGCCACCCTCCTGGAGCCTGCTGCCAGCTCTTTCCCCAGATCAGAAAAACATGGAAA
TTGAGGTGTCTGTTGCAGAATGTAAAAGTGTCTGGAATCACCTCTACCCACATCCCAGGACCATCC
CTCCGCTTTCTATTACCCCCGCATAATGGCCTCCTTACTGATCACCACGAATCCCTGGATAATGATGTT
GCCAGAGAGATCCGCTATCTAGATGAGGTGCTAGAGGCCAACTGCTGTGATTCTGCTGTGGATGGAACGT
ACAATGGAACATCCTCCCCAGAGCCTGGTGCAGTGGTTCTGGTGGCGGCCTAAGCCCCCTGTCCACGA
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AGCAGCCCTGACCCCATGGCAGAGGCAGAAAGAACAAATGGCCATTCCCCAGCCAGCCTAGAGATGCGC
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AGGAGATGCTGGAGCTGAAAAAGGAGAGGAGAGAGCTCATCCGACCCAGGCCGTCAGAAAGAATCCTGG
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GAGTCGCACAAAAAGTACAAGGAGCGCAAAGAGAGAAGGGCACAGCAGGAACAGTTGCTGCTGCAGAAGC
AGTTACAGCAGCAGCAGCAGCAGCCCCATCGCAGCTCTGCACAGCCCCTGCCTCTTCTCATGAACGCGC
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GGTCAAGGATGATGACCATGGGATTTTGGATCAGTTCTCAAGATCTGTCAATGTCTCTTACCCCAAGAG
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GTCTCAAAGTCATTTAGTGATCATGTTTCTATTCCCCTCTCCACGCTGGGGACTCTCCGTTGGTTG
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TATTTTCAGCAAGTACTCGGAGGCAGTGAAGTGAAGACACAGCCTCCCTCCTGGCCACTCAAGAATCTG
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CCGAGCAGCTCAGGAAAGGGAAGAGGAGCTGAAGAGGCAGAGACAAGTCTTGAGAGTACGAGAGCCCC
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TCAAACCTCCTCATCCCCACCACTGAAGGCCCCAGCTTGACGCTGACTTAGCCCTGAAGAGGCTGC
CGGAACCCAGCGGCCCAAGAATCTGATGCAGACCCTCATGGAAGACTATGAGACACAAAATCTAAAGG
CGCGAGAGAATGGATGATAGTAGTGTCTCGAGGCCACACGGGTTAATCGAAGAAAGAGCGCACTGGCTT
TGCGCTGGGAAGCAGGGATCTATGCCAACCAGGAGGAAGAAGACAACGAA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG215703 representing NM_147150

Red=Cloning site Green=Tags(s)

MAEAEHLKERLQIAEKRRQTEIEGKRQQLDEQILLQHSKSKVLREKWLQGIPTAGTAEERARRQS
EEDEFVRVQLEDNIQRLEQEIQTLESEESQISAKEQIILEKLKETEKSFKDFQKGFSSDGDVAVNYISSQ
LPDLPIILCSRTAEPSPGQDGTSTRAAGVWENVLLKEGESASNATETSGPDMTIKKPPQLSEDDIWLKSEG
DNYSATLLEPAASSLSPDHKNMEIEVSVAECKSVPGITSTPHPMHPSAFYSPPHNGLLTDHHESLDNDV
AREIRYLDEVLEANCDSAVDGTNGTSSPEPGAVVLVGLSPPVHEATQPEPTERTASRQAPPHIELSN
SSPDPMAEAERTNGHSPSQPRDALGDSLQVPVSPSSTSSRCSRDGEFTLTTLKKEAKFELRAFHEDKK
PSKLFEDDEHEKEQYCIKVRPSEEMLELEKERRELIRSQAVKKNPGIAAKWNPPEKTIEEQLDEEHL
ESHKKYKERKERRAQEQQLLLQKQLQQQQQPPSQLCTAPASSHERASMDKAKEDIVTEQIDFSAARKQ
FQLMENSRQAVAKGQSTPRLFSIKPFYRPLGSVNSDKPLTNPRPPSVGGPPEDSGASAAKGQKSPGALET
PSAAGSQNTASQKEGPYSEPSKRGPLSKLWAEDEGFTSARAVLTVVKDDDHGILDQFSRSVNVSLTQE
ELDSGLDEL SVRSQDITVLETL SNDF SMDNISDSGASNETTNALQENSLADFSLPQTPTDNPSEGRGEG
VSKSFDHGFYSPSSTLGDSPLDVDDPLEYQAGLLVQNAIQQAIAEQVDKAVSKTSRDGAEQQGPEATVEE
AEAAAFGSEKPPQSMFEPQVSSPVQEKRDVLPKILPAEDRALRERGPPQPLPAVQPSGPINMEETRPEGS
YFSKYSEAAELRSTASLLATQESDVMVGPFLRSRQRQLSMIEEIRAAQEREEELKRQRQVLQSTQSP
RTKNAPSLPSRTCYKTAPGKIEKVKPPPSPTTEGSLQPDLAPEEAAGTQRPKNLMQTLMEDYETHSKSR
RERMDSSVLEATRVNRRKSALALRWEAGIYANQEEEDNE

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_147150

ORF Size: 3270 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_147150.3](#)

RefSeq Size: 7495 bp

RefSeq ORF: 3273 bp

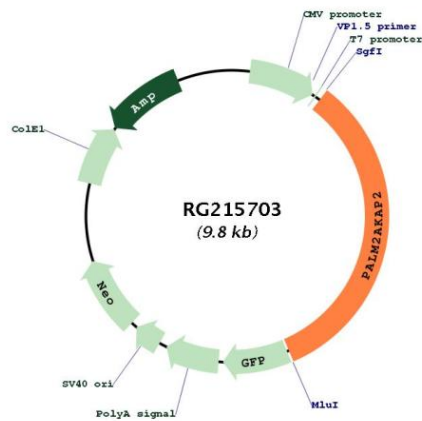
Locus ID: 445815

UniProt ID: [Q9Y2D5](#)

Cytogenetics: 9q31.3

Gene Summary: This gene belongs to the paralemmin downstream gene (PDG) family defined in PMID:22855693. Paralemmin downstream genes may have evolved contiguously with the paralemmin genes and are associated with other paralemmin paralogs in humans and several other taxa. The gene encodes three distinct protein isoforms, the PALM2 isoform, the AKAP2 isoform and the PALM2-AKAP2 isoform. The biological significance of the PALM2-AKAP2 isoforms is yet unknown. Earlier, PALM2 and AKAP2 were annotated as separate genes and PALM2-AKAP2 was annotated as a readthrough gene. [provided by RefSeq, May 2019]

Product images:



Circular map for RG215703