

Product datasheet for **RG217943**

Plakophilin 1 (PKP1) (NM_000299) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Plakophilin 1 (PKP1) (NM_000299) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Plakophilin 1
Synonyms:	B6P; EDSFS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG217943 representing NM_000299
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAACCACTCGCCGCTCAAGACCBCCTTGGCGTACGAATGCTTCCAGGACCAGGACAACCTCCAGTTGG
 CTTTGCCGTCGGACCAAAGATGAAAACAGGCAGTCTGGCAGGCAGCGGTGCAGGAGCAGGTGATGAT
 GACCGTCAAGCGGCAGAAGTCCAAGTCTTCCAGTCGTCACCCTGAGCCACTCCAATCGAGGTTCCATG
 TATGATGGCTTGGCTGACAATTACAACATATGGGACCACCAGCAGGAGCAGCTACTACTCCAAGTTCCAGG
 CAGGGAATGGCTCATGGGATATCCGATCTACAATGGAACCTCAAGCGGGAGCCTGACAACAGGCGCTT
 CAGCTCTACAGCCAGATGGAGAAGTGGAGCCGGCACTACCCCGGGCAGCTGTAAACACCACGGCGCA
 GGCAGCGACATCTGCTTCATGCAGAAAATCAAGGCGAGCCGAGTGAGCCCGACCTCTACTGTGACCCAC
 GGGGACCCCTGCGCAAGGGCAGCTGGGACGAAAGGGCCAGAAGACCACCCAGAACCCTACAGCTTTTA
 CAGCACCTGCAGTGGTCAGAAGGCCATAAAGAAGTGCCCTGTGCGCCCGCCCTCTTGTGCTCCAAGCAG
 GACCCTGTGTATATCCCGCCCATCTCCTGCAACAAGGACCTGTCTTTGGCCACTTAGGGCCAGCTCCA
 AGATCTGCAGTGAGGACATCGAGTGCAGTGGGCTGACCATCCCCAAGGCTGTGCAGTACCTGAGCTCCCA
 GGATGAGAAGTACCAGGCCATTGGGGCCTATTACATCCAGCATACCTGCTTCCAGGATGAATCTGCCAAG
 CAACAGGTCTATCAGCTGGGAGGCATCTGCAAGCTGGTGGACCTCCTCCGAGCCCAACCCAGAAGCTCC
 AGCAGGGCCGCGGAGGGCCCTGCGCAACCTGGTGTTCAGGAGCACCACCAACAAGCTGGAGACCCGGAG
 GCAGAAATGGGATCCGCGAGGCAGTACGCTCCTGAGGAGAACCGGAACCGGAGATCCAGAAGCAGCTG
 ACTGGGCTGCTTGGAACCTGTCTTCCACTGACGAGCTGAAGGAGGAACCTATTGCCGACCCCTGCCTG
 TTCTGGCCGACCGGTCATCATTCCCTTCTTGGCTGGTGGATGGCAATAGCAACATGTCCCGGAAGT
 GGTGGACCCTGAGGTCTTCTTCAATGCCACAGGCTGCTTGAGAAAAGAGACTGGGCATGCGGGAGCTTCTG
 GCTCTTGTTCGCAAAGGGCCACTAGTAGCAGGGTGAACCTGAGCTCGGCCGATGCAGGCCGCCAGACCA
 TGCGTAACTACTCAGGGCTCATTGATCCCTCATGGCCTATGTCCAGAAGTGTGTAGCGGCCAGCCGCTG
 TGACGACAAGTCTGTGGAAGTGCATGTGTGTTCTGCACAACCTCTCCTACCGCTGGACGCCGAGGTG
 CCCACCCGCTACCGCCAGCTGGAGTATAACGCCCGCAACGCTACACCGAGAAGTCTCCTACTGGCTGCT
 TCAGCAACAAGAGCGACAAGATGATGAACAACAACATGACTGCCCCCTGCCTGAGGAAGAGACCAACCC
 CAAGGGCAGCGGCTGGTGTACCATTAGATGCCATCCGCACCTACCTGAACCTCATGGGAAGAGCAAG
 AAAGATGTACCCTGGAGCCTGTGCTGGTGCCTGCAGAACCTGACAGCCAGCAAGGGGCTGATGTCCA
 GTGGCATGAGCCAGTTGATTGGGCTGAAGGAAAAGGGCCTGCCACAAATTGCCCGCTCCTGCAATCTGG
 CAACTCTGATGTGGTGGGTCGGGAGCCTCCCTCCTGAGCAACATGTCCCGCCACCCTCTGCTGCACAGA
 GTGATGGGGAACCAAGTGTTCGGGAGGTGACCAGGCTCCTCACCAGCCACACTGGCAATACCAGCAACT
 CCGAAGACATCTTGTCTCGGCTGCTACACTGTGAGGAACCTGATGGCCTCGCAGCCACAACCTGGCCAA
 GCAGTACTTCTCCAGCAGCATGTCAACAACATCATCAACCTGTGCCGAAGCAGTGCCTCACCCAAGGCC
 GCAGAAGCTGCCCGGCTTCTCCTGTCTGACATGTGGTCCAGCAAGGAAGTGCAGGGTGTCTCAGACAGC
 AAGTTTCGATAGGAACATGCTGGGAACCTTAGCTGGGGCCAACAGCCTCAGGAACCTCACCTCCCGATT
 C

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG217943 representing NM_000299
Red=Cloning site Green=Tags(s)

MNHSPLKTALAYECFQDQDNSTLALPSDQKMKGTSGRQRVQEQVMMTVKRQKSKSSQSSTLSHSNRGSM
 YDGLADNYNYGTTSSSSYSKFQAGNGSWGYPINYGLKREPDNRRFSSYSQMENWSRHYPRGSCNTTGA
 GSDICFMQKIKASRSEPDLYCDPRGTLRKGTLGSKGQKTTQNRYSFYSTCSGQKAIKKCPVRPPSCASKQ
 DPVYIPIISCNKDL SFGHSRASSKICSEDI ECGSLTIPKAVQYLSQDEKYQAIGAYYIQTCTFQDESAK
 QQVYQLGGICKLVDLLRSPNQNVQAAAGALRNLVFRSTTNKLETRRQNGIREAVSLLRRTGNAEIQKQL
 TGLLWNL SSTDELKEELIADALPVLADRVII PFSGWCDGNSNMSREVVDPEVFFNATGCLRKRLGMRELL
 ALVQPRATSSRVNLSSADAGRQTMRYN SGLIDSLMAYVQNCVAASRCDKSVENCMCVLHNL SYRLDAEV
 PTRYRQLEYNARNAYTEKSSSTGCF SNKSDKMMNNYDCPLPEEETNPKGSGWL YHSDAIRTYLNL MGKSK
 KDATLEACAGALQNL TASKGLMSSGMSQL IGLKEKGLPQIARLL QSGNSDVVRSGASLL SNMSRHPLLR
 VMGNQVFPEVTRLLT SHTGNTSNEIILSSACYTVRNL MASQPQLAKQYFSSSMLNNI INLCRSSASPKA
 AEAARLLLSDMWSKELQGVLRQQGFDNMLGTLAGANSLRNFTSRF

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000299

ORF Size: 2241 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_000299.3](#)

RefSeq Size: 5451 bp

RefSeq ORF: 2244 bp

Locus ID: 5317

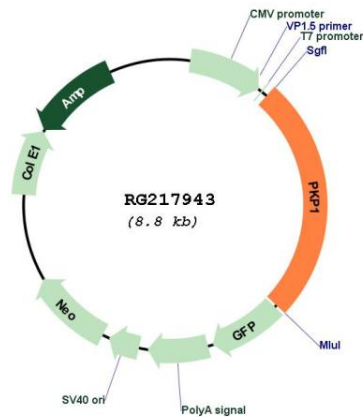
UniProt ID: [Q13835](#)

Cytogenetics: 1q32.1

Protein Families: Druggable Genome

Gene Summary: This gene encodes a member of the arm-repeat (armadillo) and plakophilin gene families. Plakophilin proteins contain numerous armadillo repeats, localize to cell desmosomes and nuclei, and participate in linking cadherins to intermediate filaments in the cytoskeleton. This protein may be involved in molecular recruitment and stabilization during desmosome formation. Mutations in this gene have been associated with the ectodermal dysplasia/skin fragility syndrome. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2010]

Product images:



Circular map for RG217943