

## Product datasheet for **RC217943**

### 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:	Myc-DDK
Symbol:	Plakophilin 1
Synonyms:	B6P; EDSFS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC217943 representing NM\_000299  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAACCACTCGCCGCTCAAGACCCTTGGCGTACGAATGCTTCCAGGACCAGGACAACCTCCAGTTGG  
 CTTTGCCGTCGGACCAAAGATGAAAACAGGCAGTCTGGCAGGCAGCGGTGCAGGAGCAGGTGATGAT  
 GACCGTCAAGCGGCAGAAGTCCAAGTCTTCCAGTCGTCACCCTGAGCCACTCCAATCGAGTTCCATG  
 TATGATGGCTTGGCTGACAATTACAATATGGGACCACCAGCAGGAGCAGCTACTACTCCAAGTTCCAGG  
 CAGGGAATGGCTCATGGGATATCCGATCTACAATGGAACCTCAAGCGGGAGCCTGACAACAGGCGCTT  
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 GGGGACCCCTGCGCAAGGGCAGCTGGGACGAAAGGGCCAGAAGACCACCCAGAACCCTACAGCTTTTA  
 CAGCACCTGCAGTGGTCAAGGCCATAAAGAAGTGCCCTGTGCGCCCGCCCTCTTGTGCTCCAAGCAG  
 GACCCTGTGTATATCCCGCCCATCTCCTGCAACAAGGACCTGTCTTTGGCCACTTAGGGCCAGCTCCA  
 AGATCTGCAGTGAGGACATCGAGTGCAGTGGGCTGACCATCCCCAAGGCTGTGCAGTACCTGAGCTCCCA  
 GGATGAGAAGTACCAGGCCATTGGGGCCTATTACATCCAGCATACCTGCTTCCAGGATGAATCTGCCAAG  
 CAACAGGTCTATCAGCTGGGAGGCATCTGCAAGCTGGTGGACCTCCTCCGAGCCCAACCCAGAAGCTCC  
 AGCAGGCCCGCGGAGGGCCCTGCGCAACCTGGTGTTCAGGAGCACCACCAACAAGCTGGAGACCCGGAG  
 GCAGATGGGATCCGCGAGGCAGTCAGCCTCCTGAGGAGAACCGGAACCGCGAGATCCAGAAGCAGCTG  
 ACTGGGCTGCTCTGGAACCTGTCTTCCACTGACGAGCTGAAGGAGGAACCTATTGCCGACCCCTGCCTG  
 TTCTGGCCGACCCGCTCATCTCCCTTCTCTGGCTGGTGGATGGCAATAGCAACATGTCCCAGGAAAT  
 GGTGGACCCTGAGGTCTTCTTCAATGCCACAGGCTGCTTGAGAAAAGAGACTGGGCATGCGGGAGCTTCTG  
 GCTCTTGTTCGCAAAGGGCCACTAGTAGCAGGTTGAACCTGAGCTCGGCCGATGCAGGCCGCCAGACCA  
 TGCGTAACTACTCAGGGCTCATTGATCCCTCATGGCCTATGTCCAGAAGTGTGTAGCGGCCAGCCGCTG  
 TGACGACAAGTCTGTGGAAAAGTGCATGTGTGTTCTGCACAACCTCTCCTACCGCCTGGACGCCGAGGTG  
 CCCACCCGCTACCGCCAGCTGGAGTATAACGCCCGCAACGCCTACACCGAGAAGTCTCCTACTGGCTGCT  
 TCAGCAACAAGAGCGACAAGATGATGAACAACAATATGACTGCCCCCTGCCTGAGGAAGAGACCAACCC  
 CAAGGGCAGCGGCTGGTGTACCATTAGATGCCATCCGCACCTACCTGAACCTCATGGCAAGAGCAAG  
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 GTGGCATGAGCCAGTTGATTGGGCTGAAGGAAAAGGGCCTGCCACAAATTGCCCGCCTCCTGCAATCTGG  
 CAACTCTGATGTGGTGGGTCGGGAGCCTCCCTCCTGAGCAACATGTCCCGCCACCCTCTGCTGCACAGA  
 GTGATGGGGAACCAAGGTGTTCCCGGAGGTGACCAGGCTCCTCACCAGCCACACTGGCAATACCAGCAACT  
 CCGAAGACATCTTGTCTCGGCTGCTACACTGTGAGGAACCTGATGGCCTCGCAGCCACAACCTGGCCAA  
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 AAGTTTCGATAGGAACATGCTGGGAACCTTAGCTGGGGCCAACAGCCTCAGGAACCTCACCTCCCGATT  
 C

**ACGCGT**ACGCGGCCGCTCGAGCAGAAAAGTCACTCAGAAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC217943 representing NM\_000299  
 Red=Cloning site Green=Tags(s)

MNHSPLKTALAYECFQDQDNSTLALPSDQKMKGTSGRQRVQEQVMMTVKRQKSKSSQSSTLSHSNRGSM  
 YDGLADNYNYGTTSSRSSYSKFKQAGNGSWGYPINYGLKREPDNRRFSSYSQMENWSRHYPRGSCNTTGA  
 GSDICFMQKIKASRSEPDLYCDPRGTLRKGLTSGKQKTTQNRYSFYSTCSGQKAIKKCPVRPPSCASKQ  
 DPVYIPIISCNKDL SFGHSRASSKICSEDI ECGSLTIPKAVQYLSQDEKYQAIGAYYIQTCTFQDESAK  
 QQVYQLGGICKLVDLLRSPNQNVQAAAGALRNLVFRSTTNKLETRRQNGIREAVSLLRRTGNAEIQKQL  
 TGLLWNL SSTDELKEELIADALPVLADRVII PFSGWCDGNSNMSREVVDPEVFFNATGCLRKRLGMRELL  
 ALVPQRATSSRVNLSSADAGRQTMRYN SGLIDSLMAYVQNCVAASRCDKSVENCMCVLHNL SYRLDAEV  
 PTRYRQLEYNARNAYTEKSSSTGCF SNKSDKMMNNYDCPLPEEETNPKGSGWL YHSDAIRTYLNL MGKSK  
 KDATLEACAGALQNL TASKGLMSSGMSQL IGLKEKGLPQIARLL QSGNSDVVRSGASLLSNMSRHPLLR  
 VMGNQVFPEVTRLLT SHTGNTSNEIDILSSACYTVRNL MASQPQLAKQYFSSSMLNNI INLCRSSASPKA  
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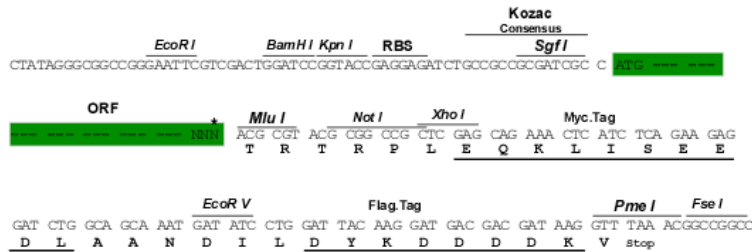
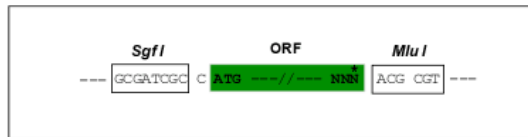
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**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](#)

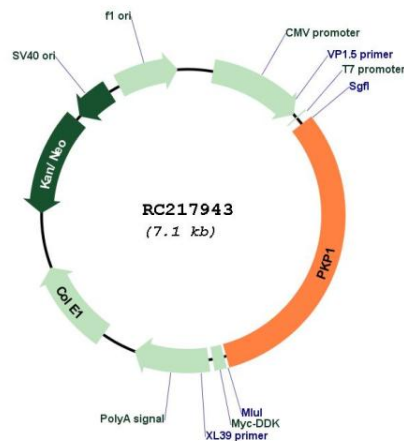
**Cytogenetics:** 1q32.1

**Protein Families:** Druggable Genome

**MW:** 82.7 kDa

**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 RC217943