

## Product datasheet for RC219744

### DAP3 (NM\_004632) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DAP3 (NM_004632) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DAP3
Synonyms:	bMRP-10; DAP-3; MRP-S29; MRPS29; S29mt
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC219744 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGATGCTGAAAGGAATAACAAGGCTTATCTCTAGGATCCATAAGTTGGACCCTGGGCGTTTTTACACA  
TGGGGACCCAGGCTCGCCAAAGCATTGTGCTCACCTAGATAACCAGGTTCCAGTTGAGAGTCCGAGAGC  
TATTTCCCGCACCAATGAGAATGACCCGGCCAAGCATGGGGATCAGCACGAGGGTCAGCACTACAACATC  
TCCCCCAGGATTTGGAGACTGTATTTCCCATGGCCTCCTCCTCGCTTTGTGATCGAGGTGAAGACAT  
TCAGTGAAGCTTGCTGATGGTAAGGAAACCAGCCCTAGAAGTCTGCATTACCTGAAAAACACCAGTTT  
TGCTTATCCAGCTATACGATATCTTCTGTATGGAGAGAAGGGAACAGGAAAAACCCTAAGTCTTTGCCAT  
GTTATTCAATTTCTGTGCAAAACAGGACTGGCTGATACTACATATTTCCAGATGCTCATCTTTGGGTGAAAA  
ATTGTCCGGATCTTCTGCAGTCCAGCTACAACAACAGCGCTTTGATCAACCTTTAGAGGCTTCAACCTG  
GCTGAAGAATTTCAAACACTACAATGAGCGCTTCTGAACCAGATAAAAAGTTCAAGAGAAGTATGTCTGG  
AATAAGAGAGAAAGCACTGAGAAAGGGAGTCTCTGGGAGAAGTGGTTGAACAGGGCATAACACGGGTGA  
GGAACGCCACAGATGCAGTTGGAATTGTGCTGAAAGAGCTAAAGAGGCAAAGTCTTTGGGTATGTTTCA  
CCTCCTAGTGGCCGTGGATGGAATCAATGCTCTTTGGGAAGAACCCTCTGAAAAGAGAAGATAAAAAGC  
CGCATTGTCGGCTTTGAGCCAGACTGGGTCTCTCTTTAAGCCCGGAAAGCCTATCTGCCCCAGGA  
GTTGCTGGGAAAGGAAGGATTTGATGCCCTGGATCCCTTTATTCCCATCCTGGTTTCCAACATAACCCA  
AAGGAATTTGAAAGTTGTATTAGTATTATTTGGAAAACAATTGGCTTCAACATGAGAAAGCTCCTACAG  
AAGAAGGGAAAAAAGAGCTGCTGTTCTAAGTAACGCAACCCCTCGCTGCTGGAGCGGCACTGTGCCTA  
CCTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC219744 protein sequence  
 Red=Cloning site Green=Tags(s)

MMLKGITRLISRIHKLDPGRFLHMGTPARQSIAAHLDNQVPVESPRAISRNTNENDPAKHGDQHEGQHYNI  
 SPQDLETVPFHGLPPRFVMQVKTFSACL MVRKPALELLHYLKNTSFAYPAIRYLLYGEKGTGKTL SLCH  
 VIHFCAKQDWLILHIPDAHLWVKNCRDLLQSSYNKQRFDPLEASTWLNFKTTNERFLNQIKVQEKYVW  
 NKRESTEKGSPLGEVVEQGITRVRNATDAVGIVLKEKLRQSSLGMFHLLVAVDGINALWGRITTLKREDKS  
 PIAPEELALVHNL RMMKNDWHGGAIVSALSQTGSLFKPRKAYLPQELLGKEGFDALDPFIPILVSNYNP  
 KEFESCIQYYLENNWLQHEKAPTEEGKCELLFLSNANP SLLERHCAYL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_004632

**ORF Size:** 1194 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\\_004632.4](#)

**RefSeq Size:** 2065 bp

**RefSeq ORF:** 1197 bp

**Locus ID:** 7818

**UniProt ID:** [P51398](#)

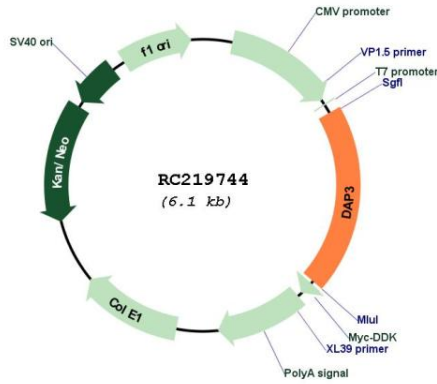
**Cytogenetics:** 1q22

**Protein Families:** Druggable Genome

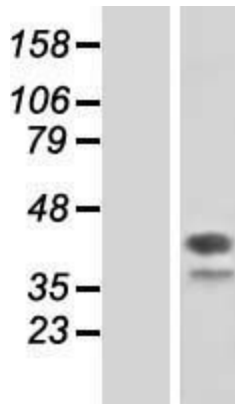
**MW:** 45.6 kDa

**Gene Summary:** Mammalian mitochondrial ribosomal proteins are encoded by nuclear genes and help in protein synthesis within the mitochondrion. Mitochondrial ribosomes (mitoribosomes) consist of a small 28S subunit and a large 39S subunit. They have an estimated 75% protein to rRNA composition compared to prokaryotic ribosomes, where this ratio is reversed. Another difference between mammalian mitoribosomes and prokaryotic ribosomes is that the latter contain a 5S rRNA. Among different species, the proteins comprising the mitoribosome differ greatly in sequence, and sometimes in biochemical properties, which prevents easy recognition by sequence homology. This gene encodes a 28S subunit protein that also participates in apoptotic pathways which are initiated by tumor necrosis factor-alpha, Fas ligand, and gamma interferon. This protein potentially binds ATP/GTP and might be a functional partner of the mitoribosomal protein S27. Multiple alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. Pseudogenes corresponding to this gene are found on chromosomes 1q and 2q. [provided by RefSeq, Dec 2010]

Product images:



Circular map for RC219744



Western blot validation of overexpression lysate (Cat# [LY417860]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219744 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).