

Product datasheet for **MR226688**

Dact1 (NM_021532) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dact1 (NM_021532) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Dact1
Synonyms:	4921528D17Rik; AI115603; DAPPER; DAPPER1; Frd1; FRODO; Frodo1; MDpr1; MTNG3; THYEX3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>MR226688 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGAAGCCGGACGACGCGCGAGCCGGAGCCGCTGAGCCCCGGCCGGGCGCGGAGGCCGAGGGGCGCT
GGCGCGAGAGGGGCGAGGCGGACACGGAGCGGCAGCGTACCCGCGAGCGCCAGGAGGCCACGCTGGCGGG
GCTGGCGGAGCTGGGGTACCTGCGGCAACGCCAAGAGCTGCTGGTGC GCGGTGCGCTGCGCTGCTCCGGG
ACCGTGGGGACCGTGC GCGCGCTCCGGGGAGCTGCGGGGAGACGCGGCGCAGCGCAGCCGCTGGAGG
AGAAGTTCCTGGAAGAGAACATCTTGCTGCTGCGAAGGCAGTTGAATTGTTTGAGGAGAAGAGATGCCGG
TTTGTGAATCAGTTGCAAGAATTGACAAGCAGATAAGTGACCTGAGACTGGATGTGGAGAAGACATCT
GAAGAGCACCTGGAGACAGACAGCCGGCTAGCTCAGGGTTTTATGAGCTGAGTGATGGAGCTTCGGGCT
CCCTCTCTAACTCCTCAACTCCGTGTTCACTGAGTGTTGTCCAGTTGCCATTCAGCACCTGCTTCTG
CAGCCCCCTTGAGGCGGCTTGACCATCTCAGACGGTTGCCCAAATCTGCAGATGTGAATCCTAAATAC
CAGTGTGATCTTGCTGCTAAAAACGGGAATGACGTATATCGCTACCCAGTCCACTTCATGCTGTGGCTG
TGACAGAGCCCAATGTTTCTCCTTTGCTGACGGGCAACACTCTGAGGGAAGAGGAGGGGCTTGGGAGCCA
TGCCAGCGACATCTGCATTGGATCTGAACTGAACGCCACCAAAACAGACAATTCCTGCCATCTCCAAGC
AGTTTGTGGTCCGCTTCCCATCTGCATCCAGTAAGAAAATGGATGGGTATATTTTGAGCCTCGTGACAGA
AGAAAACACACCTGTAAGGACCAATAAACCTAGAACCAGTGTGAACGCTGACCTACCAAGGGCCTTCT
GAGGAATGGAAGTGTGTGTGTCAGGGCCCTAGTGGCGTCCCACCGGCAGTAGTGTGAACCTTAAAGAT
ACAAAACAGATGTGTTGCCCCGCTGGGGGAATAACCTCTTTGAAAACGGGCCATTCTCCCTCCTAAGC
AGAGGTCCAAAGACTCAAAGACAGACCAGTTAGAAAGCAAGAGGTTGGCTCTGCCGAGAGCTGCTCGGC
AGGCGCCCATGGAACCCCAAAGCAAGCATGTGCCCAAAGCCGCAAGGCAGCCTCTCAAGAGCTCACA
AGGTGTCAAGCCGGGCTGGGGGAATCCATGAAGGAAAGCAATCAGGCCTCCGCTGTTTCTCTAAAAACA
GTCCTGGCAGAGGCCCTGTCCGCCCGCAGAGAGCAAAGCCCTGCAGCTCCGAAAAAGATGTGCGAGAA
GAACAGCCTCCAGGCTGTGCCGCGCTGGACAGGCCGGCCTTGACTTCAAAGCGAGGGCTCATCTCAA
AGCCTCGAGGAAGGCATCTGGTAAAAGCTCAGTTCATTCGGGGCAGCAGGGCCGCCAGGCCTCACC
GTGCACACAGGAACCCGGGTGTCGCAAGGAGCGCCACCTGAAGGCCCGCGGCCAGGCAGCCATGGAACA
CGGCTGCCACCGTCAAGGAGAAACCGGGCAGCAGGCAAGAAGTGCCGTTTCCAGACGACTCGGAT
ACAAATAAGAAATTCAGGAAGACCTCCGCCAAGGGCCGCGCAGTGGCGGCTGCAGGACGCTGGCCTTC
CCGGTAGGGCCCTGGGCACCGCGGCCATCGGGCGGGTAGCAGGGCGCACGCGCATGGCCGGGAGCCCGT
GGTGGCCAAACCGAAGCAAGCAACCGACTACCGCGGTGGAATCGTCAGCCGAGGTCTCTACGAA
GAAGCCCTGCGGAGGGCCCGGAGGGCTCGCAGGGAGCACGGGGCTGCCTACCGGGTGGTGTGCGCCTGC
CTTACGCCAGCCCTATGCCTACGTGCCAGCGACTCCGAGTACTCGGGGAGTGCAGTGCCTCTTCCA
CTCCACGGTGGTGGACACCAGCGAGGACGAGCAGCAACTACACCACCAACTGCTTCGGCGACAGCGAG
TCCAGCGTGAGCGAAGGGCAGTTCGTGGGCGAGAGCACCACCAGCGACTCAGAGGAGAGCGGGGTT
TAATCTGGTCCCAGTTTGTCCAGACTCTCCGATTCAAACGGTACCGCCCCAGACCTCCACACCCGTC
CACAAAAACCTTTGTCAAATCAAGCTTCGCACAACCTCAAGAAGAAGATCCTCCGTTTCCGCTCTGGC
TCTTTGAAACTGATGACTACCGTT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR226688 protein sequence

Red=Cloning site Green=Tags(s)

MKPDAAREPEPLSPGRGAEAEGRWRERGEADTERQRTREERQEATLAGLAELGYLRQRQELLVRGALRCSG
TVGTVAPRSGELRGDAAQRSRLEEKFLLEENILLRRLNCLRRRDAGLLNQLQELDKQISDLRLDVEKTS
EEHLETDSPSSGFYELSDGASGSLSNSNSVNSECLSSCHSSTCFCSPLAALTI SDGCPKSADVNPKY
QCDLVSKNGNDVYRYPSPHAVAQSPMFLLCLTGNTLREEEGLGSHASDICIGSELNATKTDNSLPSPS
SLWSASHPASSKKMDGYILSLVQKKTTPVRTNKPRTSVNADPTKGLLRNGSVCVRAPSGVPPGSSVNFKN
TKQMCLPAGGITSLNGPFSPPKQRSKDSKTDQLESKRLALPESCSAGAAMEPQSKHVPKAAKAASQELT
RCQAGLGESMKESNQASAVSPKTSPPGRGPVAPAESKALQLPKKMSQKNSLQAVPALDRPALDFKSEGSSQ
SLEEGHLVKAQFIPGQQAARPHRAHRNPGVARSATLKARGQAAMEHGLPTVREKPRAGKKCRFPDDSD
TNKKFRKTSAGRRSGLQDAGLPGRALGTGGHRAGSRAHAHGREPVVAKPKHKRTDYRRWKSSAEVSYE
EALRRARRARREHGAAYRVAVALPYASPYAYVPSDSEYSAECESLFHSTVVDTSEDEQSNTTNCFGDSE
SSVSEGFVGESTTTSDSEESGGLIWSQFVQTLPIQTVTAPDLHTRPTKTFVKIKASHNLKKKILRFRSG
SLKLMTTV

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

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_021532.4](#), [NP_067507.2](#)

RefSeq Size: 3650 bp

RefSeq ORF: 2337 bp

Locus ID: 59036

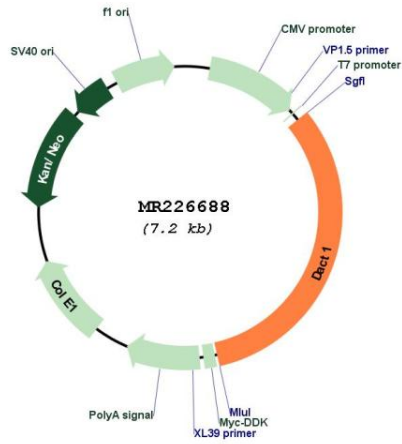
UniProt ID: [Q8R4A3](#)

Cytogenetics: 12 C3

MW: 84.3 kDa

Gene Summary: Involved in regulation of intracellular signaling pathways during development. Specifically thought to play a role in canonical and/or non-canonical Wnt signaling pathways through interaction with DSH (Dishevelled) family proteins. The activation/inhibition of Wnt signaling may depend on the phosphorylation status. Proposed to regulate the degradation of CTNNB1/beta-catenin, thereby modulating the transcriptional activation of target genes of the Wnt signaling pathway. Its function in stabilizing CTNNB1 may involve inhibition of GSK3B activity. Promotes the membrane localization of CTNNB1. The cytoplasmic form can induce DVL2 degradation via a lysosome-dependent mechanism; the function is inhibited by PKA-induced binding to 14-3-3 proteins, such as YWHAB (By similarity). Seems to be involved in morphogenesis at the primitive streak by regulating VANGL2 and DVL2; the function seems to be independent of canonical Wnt signaling and rather involves the non-canonical Wnt/planar cell polarity (PCP) pathway. The nuclear form may prevent the formation of LEF1:CTNNB1 complex and recruit HDAC1 to LEF1 at target gene promoters to repress transcription thus antagonizing Wnt signaling (By similarity). May be involved in positive regulation of fat cell differentiation. During neuronal differentiation may be involved in excitatory synapse organization, and dendrite formation and establishment of spines.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR226688