

# Product datasheet for MR226688L4V

### OriGene Technologies, Inc.

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## Dact1 (NM\_021532) Mouse Tagged ORF Clone Lentiviral Particle

### **Product data:**

Product Type:	Lentiviral Particles
Product Name:	Dact1 (NM_021532) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	Dact1
Synonyms:	4921528D17Rik; Al115603; DAPPER; DAPPER1; Frd1; FRODO; Frodo1; MDpr1; MTNG3; THYEX3
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_021532
ORF Size:	2334 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR226688).
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. <u>More info</u>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	<u>NM 021532.4, NP 067507.2</u>
RefSeq Size:	3650 bp
RefSeq ORF:	2337 bp
Locus ID:	59036
UniProt ID:	<u>Q8R4A3</u>
Cytogenetics:	12 C3



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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 PKAinduced 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 Wht 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]

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