

Product datasheet for **MG216327**

Dach1 (NM_007826) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dach1 (NM_007826) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Dach1
Synonyms:	Dac; Dach
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide
Sequence:

>MG216327 representing NM_007826
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGCAGTGCCGGCGGCTTTGATCCCTCCGACCCAGCTGGTCCCCCTCAACCCCGATCTCTACTTCTG
CTTCTCCTCGGGCACCACCACCTCCACCTCCTCGGCACCTCGTCTCCGGCTCCATCCATCGGACCCCC
GGCGTCGTCTGGGCAACTCTGTTCCGGCCGGAGCCATTGCCTCTTCTGCTTCTTTCAGCCGGCC
ACAGTCACCTCTCCTGGTGGCGCGGGCGGCAGCGGAGGCGGCGGTGGCAGCGCGGCAACGGAGGCG
GCGGGGGAGCAACTGCAACCCAGCCTGGCGGCCGGAGCAGCGGCGGCGGTAGCGCTGGCGGCGG
CGGCGCTCCAGCACCCCATCACCGCAGCACCGGCAGCAGCAGTGCAGCAGCAGCAGCAGCAGT
AGCAGCAGCAGCAGCAGTGCAGCAGCAGCAGCAGTGCAGCAGCAGCTGCGGCCCTCCCTGGAAAC
CCGTGTACTCAACCCCGTCCCAGTGGAAAACACCCCCAGAATAATGAGTGCAAAATGGTGGATCTGAG
AGGGGCCAAAGTGGCTTCTTTACGGTGGAGGGCTGCGAGCTGATCTGCCTGCCAGGCTTTCGACCTG
TTCTGAAGCACTTGGTGGGGGCTTGACACCCGTCTACACCAAGCTGAAGCGGTTGGAGATCACGCCGG
TGGTGTGCAATGTGGAACAGGTTTCGCATCCTGAGGGGACTGGGGGCCATCCAGCCGGAGTGAACCGCTG
CAAACATCTCCAGGAAGGACTTCGAGACCCTTACAATGACTGCACCAACGCCAGTTCAGACCTGGA
AGGCCTCTAAGAGGACTCAAAGTGTCACTTCCCAGAGAACTCTCACATCATGCCGCAATTCGTCCCTG
GCCTCATGTCTCCTGGAATCATTCCACCAACAGGTCTGACTGCAGCTGCTGCAGCTGCTGCAGCTGCTAC
CAATGCAGCTATTGCTGAAGCAATGAAGGTGAAAAAATAAAATTAGAAGCTATGAGCAACTATCATGCC
AGTAACAACCAACATGGAGCAGATTCTGAAAACGGGACATGAATCAAGTGTGGCAGCAGTGGTGGTT
CTTGGGATAAGGAAACACTGCACCTCCCCATCCCAGGGATCCCAGGCTCCTGTTGCACATGCCGCAT
GCCTGCAGCGTTTAGCCTTCCAGTTAGCCATCCTCTCAACCATCTGCAGCACAGCCACCTCCGCCAAAT
GGACTGGAACCTCCTTTTATGATGATGCCCCACCTCTCATTCTGTGAGCCTACCTCCAGCATCTGTCA
CCATGGCAATGAGTCAGATGAACCACCTTAGCACCATTGCAAATATGGCGGCGGCAGCACAAAGTTCAGAG
TCCTCCATCCAGGGTGGAGACATCTGTTATTAAGGAGCGTGTCCCGACAGTCCCTCGCCTGCTCCATCT
CTGGAGGAGGGCCGGAGGCCCGGCAGCCACCCATCCTCACACCGCAGCAGCAGTGTGTCAGCTCCCCGG
CGCGGACTGAGAGTTCTCCGACAGAATCCCTGTCCATCAGAATGGCCTGTCCATGAACCAGATGCTTAT
GGGTTTATCCCCAAATGTGCTTCTGGGCCAAAGGAGGGGATTTGGCTGGTGCATGACATGGGGCATGAG
TCAAAACGGATCCACATTGAAAAAGATGAGACCCCACTTCCACACCAACCGCAAGAGACAGCATCGACA
AACTTTCTCTAACTGGGCATGGACAACCACTACCTCCCGGCTTCCCATCTCCCTTCTGTTTCTGATGG
CCTGTCTCCATAGAGACTCTTCTCACTAACATACAGGGCCTCTTGAAAGTTGCCATAGACAATGCCAGA
GCTCAAGAAAAGCAGGTCCAACCTGGAAAAACAGAGCTGAAGATGGATTTTTTAAGAGAAAAGAGAACTAA
GAGAAACACTGGAGAAGCAGCTGGCCATGGAAACAAAAGAAGCAGAGCCATAGTTCAAAAGAGGCTAAAGAA
GGAAAAGAAAGCAAAGAGAAAACAGCAGGAGGCACTAGAATTTGAGACAAAACGCCGTGAGCAAGCGGAG
CAGACACTGAAACAGGCAGCTTCAGCGGACAGTCTCCGGTCTTAAATGACTCCCTGACCCCTGAGATAG
AAGCTGACCGCAGCGGAGGGAGAGCAGATGCTGAAAGGACAATAAAGATGGAAGACTGTATTTGAAAAC
TACTGTCATGTAC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG216327 representing NM_007826
 Red=Cloning site Green=Tags(s)

MAVPAALIPPTQLVPPQPPISTASSSGTTTSTSSATSSPAPSIGPPASSGPTLFRPEPIASSASSSAAA
 TVTSPGGGGGGGGGGGGGGGNGGGGGGNCNPSLAAGSSGGGVSAAGGGASSTPITASTGSSSSSSSSSS
 SSSSSSSSSSSSSSSCGPLPGKPVYSTPSPVENTPQNNCKMVDLRGAKVASFTVEGCELCIPQAFDL
 FLKHLVGLLHTVYTKLRLEITPVVCNVEQVRILRGLGAIQPGVNRCKLISRKDFETLYNDCTNASSRPG
 RPPKRTQSVTSPENSHIMPHSVPLMSPGIIPPTGLTAAAAAAAATNAAIAEAMKVKKIKLEAMSNYHA
 SNNQHGAADSENGDMNSSVSGSGSWDKETLHSPPSQGSQAPVAHARMPAAFSLPVSHPLNHLQHSHLPPN
 GLELPFMMMPHPLIPVSLPPASVTMAMSMNHLSTIANMAAAAQVQSPSRVETSVIKERVDPSPSPAPS
 LEEGRPGSHPSHRSSVSSSPARTESSDRIPVHQNGLSMNQMLMGLSPNVLPKPEGLAGHDMGHE
 SKRIHIEKDETPSTPTARDSIDKLSLTGHGQPLPPGFSPFLFPDGLSSIETLLTNIQGLLKVAIDNAR
 AQEKQVQLEKTELKMDFLRERELRETLEKQLAMEQKNRAIVQKRLKKEKKAKRKLQEALFETKRREQAE
 QTLKQAASADSLRVLNDSLTPETIADRSGGRADAERTIQDGRLYLKTTVMY

TRTRPLE - GFP Tag - V

Chromatograms: https://cdn.origene.com/chromatograms/ja1593_g06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



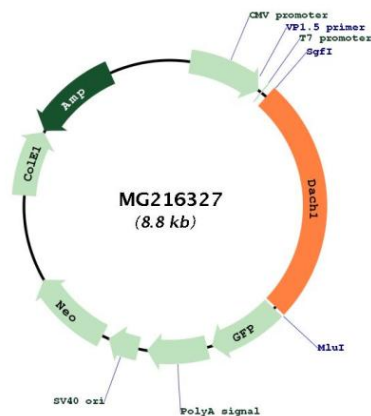
ACCN: NM_007826

ORF Size: 2253 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:	<ol style="list-style-type: none"> 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:	<u>NM_007826.3</u> , <u>NP_031852.1</u>
RefSeq Size:	5225 bp
RefSeq ORF:	2256 bp
Locus ID:	13134
UniProt ID:	<u>Q9QYB2</u>
Cytogenetics:	14 48.25 cM
Gene Summary:	Transcription factor that is involved in regulation of organogenesis. Seems to be a regulator of SIX1, SIX6 and probably SIX5. Corepression of precursor cell proliferation in myoblasts by SIX1 is switched to coactivation through recruitment of EYA3 to the SIX1-DACH1 complex. Transcriptional activation seems also to involve association of CREBBP. Seems to act as a corepressor of SIX6 in regulating proliferation by directly repressing cyclin-dependent kinase inhibitors, including the p27Kip1 promoter. Inhibits TGF-beta signaling through interaction with SMAD4 and NCOR1 (By similarity). Binds to chromatin DNA via its DACHbox-N domain. [UniProtKB/Swiss-Prot Function]

Product images:


Circular map for MG216327