

## Product datasheet for **MG209355**

### **Dach2 (BC059233) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Dach2 (BC059233) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Dach2
Synonyms:	9430028N04Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG209355 representing BC059233  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCTGTCTCTGCACCTCCGGTATCTCTGCAACTCCAGCAGCGCCGGCTCCCGGGGGTTTATTCC  
 GGGCTGAACCCCTGTATTGCTCTCCAGGAGAGCCCTCGCCTAACCCCTAACATGATCAACAGTTTCAT  
 GGCCAATAACCATAACCGCAGTGTCTTGGTGGCGGGATTGGTGGTGGCAGCGGTGGCAGCAGCAACACC  
 AACACAAACGAGTGCCGGATGGTCGACATGCACGGGGTGAAGGTAGCTTCATTCTGATGGATGGCCAGG  
 AACTGATCTGCCTGCCGCAAGTCTTTGACCTTTTCTCAAGCACCTGGTGGGAGGTTGCACACAGTGT  
 CACTAAGCTGAAGAGACTCGACATATCTCCGGTGGTGTGCACTGTAGAGCAAGTTCGAATCTCCGTGGG  
 CTGGGGGCCATCCAGCCAGGGTGAATCGTTGCAAGCTCATCACCAGGAAAGACTTTGAACTTTGTTCA  
 CCGATTGCACCAACGCCAGTTCAGGCCCTGGCAGGCCCTAAGCGTTCTTTGGGAGATTGCAAGATAA  
 TGCCCGACTTCTGCCCATGCAGTCCCAGGCCCTTATCACCAGGACTGATCACTCCAACAGGTATCACA  
 GCTGCAGCGATGGCTGAGCCATGAAGCTCCAGAAGATGAAGCTTATGGCAATGAATACTTTCAGGGTA  
 ATGGAAGCCAAAATGGGACTGAGTCAGAGCCAGATGACCTTAATTCTACGACAGGTGGAAGTGAATCCTC  
 CTGGGATAAAGATAAGATACAATCTCCACTTGCTGCTTCTGGACCTCAACATGGAATTGCTCATGCAGCA  
 CTTGCTGGTCAGCCAGGCCTTGGAGGTGCTCCGACCTTAATCCACTTCAGCAGAATCACCTGCTAAGCA  
 ATCGTCTGGATCTCCATTTATGATGATGCCTCATCCCTACTTCCAGTCAGCTTACCTCCTGCATCAGT  
 TGCCATGGCAATGAATCAGATGAATCATCTCAACTATTGCCAATGGCTGCTGCAGCCAGATTAC  
 AGTCCACTCTCCAGAGCTGGTGCCTCTGTTATAAAGGAACGGATCCCAGAGAGTCTTCTCCTGCTCCCT  
 CTCTGGAAGAGATCATCGTCTGGGAGCCAGACTCTCCACCAAGCAGCAGTGTGTCCAGCTCTCC  
 CTGCGAGATGGATCATCATTAGAGAGAATGGTTATGATGCCCAACAATCGAGAAGAGCTTATTGTTGAC  
 CAAGATAATGGACAAAGCATAAAAAAATTCAGAGGGATAATAAAGAAGAAGTACCAGCTCAAATCCAG  
 TCATGAAGTCACCCTTGATAAGATCCAGTTGGCTCCTGGACAGGCATTGCATCCTGGATTCCCTGGACC  
 ATTCATTTTTGCAGATAGTCTATCTTCTGTGGAGACTCTGTTGACCAACATTCAGGGTCTACTGAAAGTG  
 GCTTTGGATAATGCTCGTATCCAGGAGAAGCAGATTGAGCAGGAAAAGAAGGAAGTGCAGATAGAGCTCT  
 TCAGAGAAAGAGAAATTAGAGAAAACCTGGAGCGACAACCTGCAGTTGAGCTTCAAAGCAGAAAGTACAAT  
 GCAAAAGCGTCTGAAAAAAGAGAAAAAGGCTAAGAGAAAACCTCAGGAAGCCTTGAATTTGAATCAAAG  
 CGCCGCGAGCAAGTGGAGCAAGCACTTAAACAAGCTACATCTGGTGACAGTGGACTGAGAATGTTAAAG  
 ATCTGGAATTCAGATATTGAAATAGAAAACAGTGAACGCCGATGACAGTGTCTATGCAAGCC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG209355 representing BC059233  
 Red=Cloning site Green=Tags(s)

MAVSAPPVISATSSSAGVPGGLFRAEPLYSSPGEPPRLTPNMINSFMANNHNGSVLGGGIGGSGSSNT  
 NTNECRMVDMHGKVASFLMDGQELICLPQVFDLFLKHLVGGHTVYTKLRLDISPVVCTVEQVRIIRG  
 LGAIQPGVNRCKLITRKDFETLFTDCTNASSRPRGPPKRSGLVLDQDNRLLPHAVPGLLSPGLITPTGIT  
 AAAMAEAMKLLQMKLMAMNTLQNGSQNGTESEPDDLNSTTGGSESSWDKDKIQSPLAASGPQHIAHAA  
 LAGQPGLGGAPTLNPLQQNHLLSNRLDLPFMMMPHLLPVSLPPASVAMAMNQMNHLNTIANMAAAQIH  
 SPLSRAGASVIKERIPESPPAPSLEESHRRPGSQTSSHPSSSVSSPSQMDHHSERMVMPNREELIVD  
 QDNGQSIIKFKQRDNKEEVAQIPVMKSPLDKIQLAPGQALHPGFPGFIFADSLSSVETLLTNIQGLLKV  
 ALDNARIQEKQIQEKELRIELFREREIRENLERQLAVELQSRSTMQRLLKKEKKAKRKLQEALEFESK  
 RREQVEQALKQATSGDGLRMLKDSGIPDIEIENSGTPHDSAAMQA

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI



<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">BC059233</a> , <a href="#">AAH59233</a>
<b>RefSeq Size:</b>	4968 bp
<b>RefSeq ORF:</b>	1820 bp
<b>Locus ID:</b>	93837
<b>Cytogenetics:</b>	X 49.13 cM
<b>Gene Summary:</b>	Transcription factor that is involved in regulation of organogenesis. Seems to be a regulator for SIX1 and SIX6. Seems to act as a corepressor of SIX6 in regulating proliferation by directly repressing cyclin-dependent kinase inhibitors, including the p27Kip1 promoter. Is recruited with SIX6 to the p27Kip1 promoter in embryonal retina. SIX6 corepression seems also to involve NCOR1, TBL1, HDAC1 and HDAC3. May be involved together with PAX3, SIX1, and EYA2 in regulation of myogenesis. In the developing somite, expression of DACH2 and PAX3 is regulated by the overlying ectoderm, and DACH2 and PAX3 positively regulate each other's expression. Probably binds to DNA via its DACHbox-N domain.[UniProtKB/Swiss-Prot Function]