

Product datasheet for MC224136

Dennd3 (NM_001081066) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Dennd3 (NM_001081066) Mouse Untagged Clone
Tag: Tag Free
Symbol: Dennd3
Synonyms: AI447457; E030003N15Rik
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC224136 representing NM_001081066
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGCGGAGCCCGCGCGCACCTGTCGCTGCCCTCGGGCTGCTGGAGTTGTGCGCGCTGCTGGGCG
CCTCTCAAGACAGCCTCCGCGGCTGGAGCAGATTGCCAGAAACGAGGAGTGAAGAGCGCTCTCCCT
TGTCGCCGAAGTCTGTCTGTTTTCGTGCTCCTTTACCACAAAAGAGGATGGCCAGGTACCGGGGCC
AGCTGTGCTCTTGCAAAGGCAGGAGGCGTTCTTCCGGAAGAAGCGAGAGAAGCCAGGATGGAGCCCT
GGAAGAGCCACCCTGGAGACTCCAAGGGGCCGATTCTGAAGATGTCACCATCCCAGGAGGTGTGGACCT
CCTTGCCCTGCCTCAGCTCTGCTTCCAGGGTGTGTGTGTGGCTTCGGAACCCAAAGAGGACTACATC
CATTTCTGGTGTCTACGGATGTCTGTGAAATAGAACCATGGTGTGGTCCGCCAGTACTATCGACCCC
TGCATGATGAATATTGTTTCTACAATGGCAAGAGCCACTGGGAGCCAGCGTGATCTCAGCTAGGTGCTT
TGTGCCTTTTGCAGTGTGTGTGGTGTCCCGATTCCCCTACTATAACTCCCTCAAGGACTGCCTCTCCTGT
TTATTGACTCATCTGAAGCTCTGTAAGATTTTGAAGTTGACAATCACATAAAGGATTTTCGCTGCACGAC
TGTCCCTAATACCTAGTCCACCGCTGGGCCGCTCCACTTGATATTTAACATGAAGCCGCTGCAGTCTGT
CTTCCCTCTCGAGCGGACCCCGAGAGCCCATCGTCGACTTGGACCTTACCTGCCCCTGCTGTGCTTC
CGGCCTGAGAAAAGTGTTCAGATCCTGACCTGTATCTTGACGGAACAGCGCATCGTGTCTTCTCCTCAG
ACTGGGCCCTGCTGACGCTCATGGCCGAGTGTCTTGTGGCTACCTCCACCCGCTGCAGTGGCAGCACAC
GTTTGTGCCCATCCTGTCGGGTGAGATGCTGGACTTCGTCATGGCTCCCACGCTTTCTCATGGCTGT
CATCTCGACCACTTTGAAGAAGTCAGAAAGGAAGCTGATGGTTTGGTCTGATTGACATTGACCACGGGA
GTGTCACCTGCTCCAAGTCTTCTGACGACAACATAGACATTCTGATGTCCCCCTTCTGCTGGCAGACAG
CTTCATTAGAGAGTCCAGAGTCTCCAGCTGCACCCGATTTGCACCTTGCCACCTGAGTGCCAGCACA
GACTTGAACGAGGCGGAGCCCGCCGCGGAGCCTGGCAGCAGACTCTCAACTGCAAGATTAGCAGCATCA
CTCTACAGCTGCTCGTTGGCATCTTCAAGGAAGTGAAGAATCACTTGAATTATGAACACCCGCTTCTCAA
CAGCGAGGAGTTTCTCAAGACAAGAGCGGACGGGACCAGCAGTTTTATAAGCAGTTTTTGGACACCTAC
ATGTTCCACTCCTTTCTGAAGGCGCGGCTCAACGGCAGGATGGACGCCTTGTCTCGGATGGACCTCGACA



CTCAGTCTGAGGAGGACAGGATAGACAGGATGCTGATAAGTCCAAGGAGACCTACTGTGGAGAAGATGGC
CTCCAGGAAGGCCTCACCCTGCACATACCCACAGACGCATGGTGGTCAGCATGCCCAACCTGCAGGAC
ATCTCCCTGCCGAGCTGCCTCCAGGAACTCATCGCTTCGGATAATGGACACCTCAAACCTGCAGAAGCA
GCAGTCCAGTTCTCAAAGTGACCCTAAGTCAACATATATGTTCAAGATCCCTGATATCCACTTCCCCT
GGAGAGCCAGTGTGTTCCAGGCATACTATACAGACTTCGCTACTCTCTGAGCAAGGCCATGGCGCTGTG
GGTCTGGCGACTCTCTGCTCCTAGCCAGTACTTCTACCTGCGTGGTCTTCTCCATCTGATGCAGGGAC
AACTGCTGAGTGCCCTCTTGATTCCAGAACCTGTATAAGACCGACATAGGGATCTTCCCGGCTGATCT
GGTCAAGAGAACGGTGAATCCATGTCCGCTCTGAGCGGGCCAGGCCGAGCGGACGCCTGAGCTCAGG
CGGCTCATCACAGAGGTCTTTGATAAAGCACGGCGAGGCCCCCAAGGCAGATGACGCCGTGAAGAACTTCG
AACTGCCCAAGAAGCACATGCAACTCAATGACTTTGTGAAGCGAGTCCAGGAGTCGGGGATCGTGAAGGA
CGCCGTCAATTACCACCTGTGTTGATGCACTGACCTTCGGACACGAGAAGCAGATTGACCCGGAGACC
TTCGAGACTTTTACACCTGCTGGAAGGAGACTGAGGCAGAGGCACAGGAGGTGACCTGCCCGCACTGC
TCATGGAGCACCTGGATAAAGACGAGTGCCTACAAGCTGTCGAGCTCTGTGAAGACCAACCGTGGAGT
GGCAAGATCGCCATGACCCAGAAGCGCTGTTCTTGTCCAGGGGGCGCCGGCTATGTGGAGATT
GCCACCTTCAGGAACATAGAGGAAGTCAAAAATAGCACCGTGGCATTTCCTCCTGAGGATACCCACCT
TAAAGATCAAGACGGTGGCCAAGAAGGAAGTCTTCGAGGCCAACCTCAAGTCGGAGTGTGACCTCTGGCA
CCTCATGGTGAAGGAGATGTGGGCCGAAAGCAGCTGGCAGATGACCACAGGACCCACAGTACGTCACG
CAGGCACTGACCAATGTCTGCTCATGGATGCCGTGGTTGGCACGCTGCAGTCACTAGTGCCATTCATG
CTGCCTCAAGCTGGCCTACTTTGACAACATGAAGAAGAAGTCACCCATGGCGGTCCCAAAGACAACCTC
GGAGACCTAAAACACAAGATTAACCTTCAGCCGGAGAGACCGTCCCAAAGCATTGAAGTCTGCTG
TATACTCCAGGGCGCCTGGATCCTGCAGAGAAGGTGGAAGATGCCACCCAAAGCTGTGGTGTGCCCTGA
ACGAAGGCAAAGTGGTGTGTTGATGCCTCCTTTGGACCGTCCACCAGCATTGCTTTAAAGTGGGTTT
CTCGAAAGTGAAGTGTATGGTGTGGCGGAGCACAAACCAGGTGTGGGTGGGCTCCGAGGACTCTGTCATC
TACATCATCAATGTCCACAGCATGTCTGCAACAAACAGCTCACGGATCACCGTTCTCCAGTCACTGGCT
TGCCCGTGCACAATGAAAGAAGCCAGTGAAGTCTACTCCTGTAGTCTGGATGGGACGGTCATCGCGTG
GAATGTGACGACACTGCGAGTGTGATCAGCCGGTTCAGCTGTACACGGTACCTCCTGTCCATCAGCCTG
CACAACGACCGCATATGGTGTGTACAGTCCACAAGATCTTGGTGGTACCCCGCAGGGCTTTGTTCTGTC
AAGAGTGAAGCATCCGAAAGATGCCTCCTTCTGGCCTTCCAACCTCTGCTGAGGAGCAGCAGCTGTG
GGCGGCTCTACGGGGTCACTGAGCTGTATATGTGGAGCCTGAAGGACCTGGACCAGCCTCCTCAGAAG
ACTTACTTACAAGACTGCTCCGAGGTCACTGTATGATCCGGTGAAGAGGCAGATCTGGTGGGGCGCA
GGGGGCTGTCTCAGGGAAAACAGAGGGAAGATCTACGTGATGGACGTGGAGAAGGTGACGGTGGAAAA
GGAGCTGGTGGCACACTTGGACACCGTGAAGACCTGTGTTCTGCTGAGGACCGTACGTACTGAGCGGA
CGGGCCAGGAGGAGGAAAGATCGCCATCTGGAAGGTGGAGTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Sgfl-Mlul
- ACCN:** NM_001081066
- Insert Size:** 3825 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- 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_001081066.1](#), [NP_001074535.1](#)

RefSeq Size: 5299 bp

RefSeq ORF: 3825 bp

Locus ID: 105841

UniProt ID: [A2RT67](#)

Cytogenetics: 15 D3

Gene Summary: Guanine nucleotide exchange factor (GEF) activating Rab12. Promotes the exchange of GDP to GTP, converting inactive GDP-bound Rab12 into its active GTP-bound form. Regulates autophagy in response to starvation through Rab12 activation (PubMed:24719330, PubMed:25925668, PubMed:28249939). Starvation leads to ULK1/2-dependent phosphorylation of Ser-554 and Ser-572, which in turn allows recruitment of 14-3-3 adapter proteins and leads to up-regulation of GEF activity towards Rab12 (PubMed:25925668). Also plays a role in protein transport from recycling endosomes to lysosomes, regulating, for instance, the degradation of the transferrin receptor and of the amino acid transporter PAT4 (PubMed:21718402, PubMed:24719330). Starvation also induces phosphorylation at Tyr-940, which leads to up-regulated GEF activity and initiates autophagy (PubMed:28249939). [UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) represents the protein coding transcript. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.