

## Product datasheet for **MR227405**

### **Dlg4 (NM\_007864) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Dlg4 (NM_007864) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Dlg4
Synonyms:	Dlgh4; PSD-95; PSD95; SAP90; SAP90A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR227405 representing NM\_007864  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGACTGTCTCTGTATAGTGACAACCAAGAAATACCGCTACCAAGATGAAGACACGCCCCCTCTGGAAC  
 ACAGCCCGGCCACCTCCCAACCAGGCCAATTCTCCCCCTGTGATTGTCAACACGACACCCTAGAAGC  
 CCCAGGATATGAGTTGCAGGTGAACGGAACAGAGGGGAGATGGAGTATGAGGAGATCACATTGGAAGG  
 GGTAACTCAGGTCTGGGCTTCAGCATCGCAGGTGGCACCGACAACCCACACATCGGTGACGACCCATCCA  
 TCTTTATACCAAGATCATTCTGGTGGGGCTGCAGCCAGGATGGCCGCCTCAGGGTCAACGACAGCAT  
 CCTGTTTGTCAATGAAGTGGATGTCGGGAGGTGACCCATTGAGTGCAGTGGAGGCCCTCAAAGAGGCG  
 GGTTCATCGTTCGCCTCTACGTCATGCGCCGAAACCCCGAGTGAAGATCATAGAGATCAAGCTTA  
 TCAAAGGGCCTAAAGGACTTGGCTTCAGCATCGCAGGGGGCGTTGGGAACAGCACATCCCTGGAGATAA  
 TAGCATCTACGTAACCAAGATCATCGAAGGAGGCGCTGCCACAAGGATGGCAGTTGCAGATCGGAGAC  
 AAGATCCTGGCGGTCAACAGTGTGGGGTAGAGGATGTCATGCATGAGGACGCCCTGGCAGCCCTGAAGA  
 ACACATATGACGTTGTGTACCTAAAGGTGGCCAAGCCAGCAATGCCTACCTGAGTGACAGCTATGCTCC  
 CCCAGACATCACAACTCATATTCTCAGCACCTGGACAATGAGATCAGTCATAGCAGCTACTTGGGCACC  
 GACTACCCACAGCCATGACCCCACTTCCCCTCGGCGTACTCCCCCGTGGCCAAGGACCTGCTAGGGG  
 AGGAAGATATCCCCGGGAACCAAGCGGATCGTGATCCATCGGGGCTCCACCGGCTGGGCTTCAACAT  
 TGTGGGCGGCGAGGACGGTGAAGGCATCTTCATCTCCTTTCATCCTTGTGGGGTCCAGCTGACCTCAGT  
 GGGGAGCTACGGAAGGGGACCAGATCCTGTGCGTCAATGGTGTGACCTCCGCAATGCCAGTCATGAAC  
 AGGCTGCCATTGCCCTGAAGAACGCGGGTCAGACGGTCACGATCATCGCTCAGTATAAACAGAGAAGATA  
 TAGCCGATTTCGAGGCAAGATCCATGATCTTCGGGAACAGCTTATGAATAGTAGCCTGGGCTCAGGGACT  
 GCATCTCTGCGAAGCAACCCCAAGCGGGCTTCTATATCAGGGCCCTGTTTACTACGACAAGACCAAGG  
 ACTGCGGTTTCTTGTAGCCAGGCCCTGAGCTTCCACTTTGGGGATGTGCTTCATGTAATTGACGCCAGCGA  
 CGAAGAGTGGTGGCAAGCGCGGGTCCACTCTGACAGTGAGACCGATGACATTGGCTTATTCCAGC  
 AAACGCGGGTTCGAGCGACGAGAGTGGTCAAGGTTAAAGGCCAAGGACTGGGGCTCCAGCTCTGGATCAC  
 AGGGTCGAGAAGACTCGGTTCTGAGCTATGAGACGGTACGCAGATGGAAGTGCCTACGCTCGCCCCAT  
 CATCATCCTTGGCCTACCAAGACCGTGCCAACGATGATCTTCTCTCCGAGTTCCTCCGACAAGTTTGA  
 TCCTGTGTCCCTCATACGACACGTCCTAAGCGGAATATGAGATAGACGCGCGGATTACCACTTTGTCT  
 CCTCCCGGAGAAAATGGAGAAGGACATTCAGGCGCACAAAGTTTATTGAGGCTGGCCAGTACAACAGCCA  
 CCTCTACGGGACAGCGTCCAGTCTGTGCGAGAGGTAGCAGAGCAGGGGAAGCACTGCATCCTTGATGTC  
 TCAGCCAATGCCGTGCGGCGGCTGCAGGCGGCCACCTGCACCCTATCGCCATCTTCATCCGTCCCCGCT  
 CCCTGGAGAATGTGCTAGAGATCAATAAGCGGATCACAGAGGAGCAAGCCCGAAAGCCTTCGACAGGGC  
 CACGAAGCTGGAGCAGGAGTTCACGGAGTGCTTCTCAGCCATCGTAGAGGGCGACAGCTTTGAAGAGATC  
 TATCACAAAGTGAACGTGTCATCGAAGACCTCTCAGGCCCTACATCTGGGTCCCAGCCCGAGAGAGAC  
 TC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR227405 representing NM\_007864  
Red=Cloning site Green=Tags(s)

MDCLCIVTTKKYRYQDEDTPPLEHSPAHLPNQANSPPVIVNTDTLEAPGYELQVNGTEGEMEYEEITLER  
 GNSGLGFSIAGGTDNPHIGDDPSIFITKIIPGGAAAQDGRRLRVNDSILFVNEVDVREVTSHA AVEALKEA  
 GSIVRLVYMRKPPAEKIIIEIKLIKGPKGLGFSIAGGVGNQHIPGDNISIVTKIIEGGAHKDGRLLQIGD  
 KILAVNSVGLLEDVMHEDAVAALKNTYDVVYLKVAKPSNAYLSDSYAPPDITTSYSQHLDNEISHSSYLGT  
 DYPTAMTPTSPRRYSPVAKDLLGEEDIPREPRRIVHRGSTGLGFNIVGGEDGEGIFISFILAGGPADLS  
 GELRKGQDQILSVNGVDLRNASHEQAAIALKNAGQTVTIIAQYKPEEYSRFEAKIHDREQLMNSSLGSST  
 ASLRSNPKRGFYIRALFDYDKTKDCGFLSQUALSFHFGDVLHVIDASDEEWWQARRVHSDSETDDIGFIPS  
 KRRVERREWSRLKAKDWGSSSGSQGREDSVLSYETVTQMEVHYARPIIILGPTKDRANDLLSEFPDKFG  
 SCVPHTTRPKREYIDGRDYHFVSSREKMEKDIQAHKFEAGQYNHLYGTSVQSVREVAEQGKHCILDV  
 SANAVRRLQAHLHPAIFIRPRLENVLEINKRITTEEQARKAFDRATKLEQEFTECFSAIVEGDSFEEI  
 YHKVKRVIDLSGPYIWPARERL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_007864

**ORF Size:** 2172 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:**

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\\_007864.3](#), [NP\\_031890.1](#)

**RefSeq Size:** 3339 bp

**RefSeq ORF:** 2175 bp

**Locus ID:** 13385

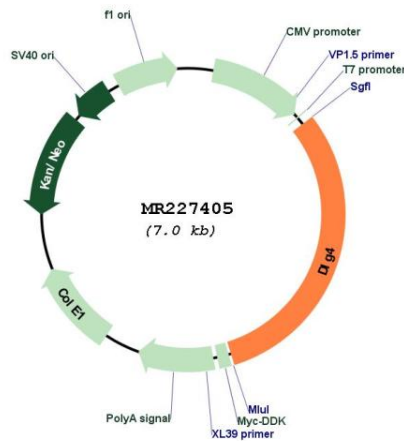
**UniProt ID:** [Q62108](#)

**Cytogenetics:** 11 B3

**MW:** 80.9 kDa

**Gene Summary:** Interacts with the cytoplasmic tail of NMDA receptor subunits and shaker-type potassium channels. Required for synaptic plasticity associated with NMDA receptor signaling. Overexpression or depletion of DLG4 changes the ratio of excitatory to inhibitory synapses in hippocampal neurons. May reduce the amplitude of ASIC3 acid-evoked currents by retaining the channel intracellularly. May regulate the intracellular trafficking of ADR1B. Also regulates AMPA-type glutamate receptor (AMPA) immobilization at postsynaptic density keeping the channels in an activated state in the presence of glutamate and preventing synaptic depression (Probable).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR227405