

## Product datasheet for **MG219928**

### Exd1 (NM\_172857) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Exd1 (NM_172857) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Exd1
Synonyms:	4932702D22Rik; Exd11; mExd1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG219928 representing NM\_172857  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGATCCAGCAGTACTACCATTTCCTCAACCAGATTTTGTGGAGAAGGGTGAAGCTCACACTGGTGT  
 CTGGCATCTTTGAGGGCGTGCTCCAGCACGTGGATCCTAACAAGATTGTTGTCTGAAAAACGTGAGGAA  
 TGCAGAGTCGGGCGCAGCGTCCAGGGGTGAAAGTGTCTTCGGGCACGAGATCTTGAATGTGGAACATA  
 ATGGATGAAGCAGAAGGTGCATCGGGGAGAAGGCATCCGCTGTTAGCATAAATACAGAACGAGCTGGAA  
 TGGAGAAAAGTAAAAATGAAGACGTCAATGTCTGTGAGCCGGCTTACCTGCACCAGAGGTGCCAACCCAG  
 CTCTCTCCTCAGTGACCTCAAGTACTGCCCGTCAGAGGAAGAGGAGGTGACATACACAGTATTGATCAG  
 TTCCAGCAGAAGTTGGTGTGCAATGTCCACATCAAGAAGCAGAGTGTCTGAGTGTGCTGCCGAAG  
 GCGCCAATGTGTGTCGCATGGGAACTCTGTTGGCTTCCAGTGGCCACAACAGCCGAGTTACTTGT  
 TGATTTTTCTTCTGGGAAGTCGTGCTTCAATAATGGACTTCAGATGATCTTAGAAGACAAGAGAATC  
 TTAAGGTTATCCACGATTGTCGCTGGCTCTGACTGCCTGTCTCATCAGTATGGAATCATGCTGAACA  
 ATGCTTTTGATACACAGGTAGCCGACGTCTTCAATTTCTATGGAACGGGTGGCTTTCTTCAAACCTG  
 TATCAGTACTTTGAGGAGATTTAATCAGACACCTTAAAGTTGCTCCCAGATACCTTTTCTTTTGAAG  
 GAGAGACAGAAACGTATTCAGGAAAATCCAGAAAATATGTTTGACAAGACCTTCCACCCTCTTTATTGA  
 AAATCTTGGCCCTGGAACAACCTACCTGCTTCCACTTCGATTGGTGTCTCTGGATGAGGTGATGTCAGA  
 CTTAACACACTGGTGGATGGGTACCTGAACACCTACCGGGAGGGCTCTGCAGACCGGCTTGACGGCACA  
 GAGCCTGCGTGTATGGAGCTGCCAGCAGAGCTTCTTCAACTCCAGGACTCCAGAAACAGCCGAGAGAGC  
 GAGCTGTGAAGGAGTACAGAGTGAACGCACGGGGCTCCTATAAGGACTCCACTGCACCCAAAGGAGCC  
 GACAGCTTGACACAGCAGGAAAGAGGAGCGAGTCCAGGGTTTCTATTTTATAAGACGGATGGTGGAGAC  
 CAAGTTCCACGCTTTTTATGTCCAAATCTCATGAGGATGAGAAGTTTTTGGATAAAGAATCTAAACAAA  
 CCACAGCAAAGTCTCAGATTGTGCCTCCAGGAAGGAAGGCGAAGCCATAAGGACTCTAAGAACAAACC  
 GGGGTGTTGGGAGTCAGCGGGGCCAGAAGACCCGAGAGCCAGAAAGCCACGCCCTGCCTCCCACGTGG  
 GCATCTCAGTCCCAGTTTTCTTTGAAAGAGGAGATAGAGCAGTTGACAGTGGTGGGAAATAAGGGAGCTT  
 TAACAAGCCAAAAGAAGGCGCTTGGTGTGCGCTTCTCTCCTCAGGAAACCTGGGAGGCCAACCTGA  
 CACCTTCCATCTCTGAAAAGCTGAGGTCTCTACACTTCTCCCTGTCCAGCCCTGGAGAAGACAGAC  
 TCATGGATAAGTCCATCTTAAATCTGTTT

**ACGCGTACGCGGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG219928 representing NM\_172857  
 Red=Cloning site Green=Tags(s)

MDPSSDYHFLNQILWRRVKLTLVSGIFEGVLQHVDPNKIVVLKNVRNAESGRSVPGVKVFFGHEILNVEL  
 MDEAEGASGEKASAVSINTERAGMEKVNEDVNVCEPASPAPPEVPTSSLLSDLKYCPSEEEVYTVIDQ  
 FQKFGAAMLHIKKQSVLSVAAEGANVCRHGKLCWLQVATNSRVYLFDFLLGSRAFNNGLQMILEDKRI  
 LKVIHDCRWLSDCLSHQYIGMLNNVFDQVADVLQFSMETGGFLPNCISTLQESLIRHLKVAPRYLFFLE  
 ERQKRIQENPEIWLTRPLPSSLKILALETYLLPLRLVLLDEVMSDLTTLVDGYLNTYREGSADRLAGT  
 EPACMELPAELLQLQDFQKQRRERAVKEYRVNARGLLIRTPHPKPTACTAGKEERVQGFIFYKTDGGD  
 QVPRFLCPKSHEDKFLDKESKQTTAKSQIVPPRKEGEAHKDSKNKPGCWE SAGPEDPRAQKAHALPPTW  
 ASQSQFSLKEEIEQLTVVGNKGALTSPKEGALVSPSLLQETWEAPTDTFHLPEKAEVSTLPPCPALEKTD  
 SWISPSLNLF

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_172857

**ORF Size:** 1710 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\\_172857.2](#), [NP\\_766445.1](#)

**RefSeq Size:** 3143 bp

**RefSeq ORF:** 1713 bp

**Locus ID:** 241624

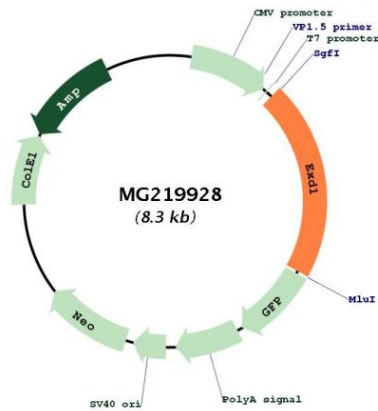
**UniProt ID:** [Q8CDF7](#)

**Cytogenetics:** 2 E5

**Gene Summary:**

RNA-binding component of the PET complex, a multiprotein complex required for the processing of piRNAs during spermatogenesis. The piRNA metabolic process mediates the repression of transposable elements during meiosis by forming complexes composed of piRNAs and Piwi proteins and governs the methylation and subsequent repression of transposable elements, preventing their mobilization, which is essential for the germline integrity (PubMed:26669262). The PET complex is required during the secondary piRNAs metabolic process for the PIWIL2 slicing-triggered loading of PIWIL4 piRNAs. In the PET complex, EXD1 probably acts as an RNA adapter. EXD1 is an inactive exonuclease (By similarity).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MG219928