

## Product datasheet for **MG221410**

### Prrt1 (NM\_030890) Mouse Tagged ORF Clone

#### Product data:

|                           |                                                                             |
|---------------------------|-----------------------------------------------------------------------------|
| Product Type:             | Expression Plasmids                                                         |
| Product Name:             | Prrt1 (NM_030890) Mouse Tagged ORF Clone                                    |
| Tag:                      | TurboGFP                                                                    |
| Symbol:                   | Prrt1                                                                       |
| Synonyms:                 | Bat-4; Bat4; D17H6S54E; DSPD1; G5b; NG5; ORF31                              |
| Mammalian Cell Selection: | Neomycin                                                                    |
| Vector:                   | pCMV6-AC-GFP (PS100010)                                                     |
| E. coli Selection:        | Ampicillin (100 ug/mL)                                                      |
| ORF Nucleotide Sequence:  | >MG221410 representing NM_030890<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCGTGAGAAAAGTCAGGCCTTCCAGACTCGGTTCCACACTTCACCGCCGCCCTACAATGCCCC  
AGCCACCGGCCGAGCCCCCATCCCGCCCCACAACGGCCCCATCCTCACATCACCACCACCACCACCA  
TTACCACCAGTCTGGCACCGCCACCCTCCCGCCTTAGGAGCAGGTGGCCTGGCCTCTGCTGCGGCCAGT  
GCTCAACGCGGTCTTCGTCTCCGCCACGCTACCGCGGCCCCCCACCATGCCCGCCCGCCCGCCGCG  
CTGGGGTCCCCACCGGCTGTGCTACCTTACCCCGCATGCCACCCGACCTTATCTGCAGGAGACTCG  
CTTCGAGGGTCCACTTCCCCACCACCGCTGCGGCCGCGCCCGCCCGCCCGCCCGCCCGCCCGCCG  
GCCAAGCCCCGGGCTTCGTGGTCCCACGCACGCGGGGGCGGTGGGCACGTTGCCGCTGGGGGGTACG  
TGGCGCCGGGCTACCCGCTGCAGCTGCAGCCGTGCACTGCTTATGTCCCTGTGTATCCGGTGGGCACGCC  
CTACGCAGGCGGGACCCCGGGGCTCTGGAGTGACCTCCACTCTGCCCGCCCGCCCGCCCGCCCGCCG  
TTGGCTCTGTTGGAGCCAGGCGTCCGCCACACGACTACATGCCATCGCTGTGCTGACCACCATCTGCT  
GCTTCTGGCCACAGGCATCATCGCCATCTCAAGGCCGTGAGGTGCGCACGGCTTTGGCCCGGAGA  
TTTGGTGTCTGCCGAGATCGCTTACGCGAAGCCCGGAATTTCTCCTTCACTCCCTGGCCGTGGGCATC  
GCAGCCATGGTCTTTGTACCATCTCACTGTAGTCATCATCATCGCCGCCAGCACCACGAAACTACT  
GGGATCCC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >MG221410 representing NM\_030890  
 Red=Cloning site Green=Tags(s)

MSSEKSGLPDSVPHTSPPPYNAPQPPAEPPIPPPQTAPSSHHHHHHHHYHQSQTATLPRLGAGGLASAAAS  
 AQRGPSSSATLPRPPHHAPPGPAAGAPPPGCATLPRMPPDPYLQETRFEGPLPPPPAAAAAPPPAPAPT  
 AQAPGFVVPHTAGAVGTLPLGGYVAPGYPLQLQPCTAYVPVYPVGTPTYAGGTPGGPGVTSTLPPPPQGGP  
 LALLEPRRPPHDYMPIAVLTTICCFWPTGIIAIFKAVQVRTALARGDLVSAEIASREARNFSFISLAVGI  
 AAMVLCITLTVVIIIAAQHHENYWDP

TRTRPLE - GFP Tag - V

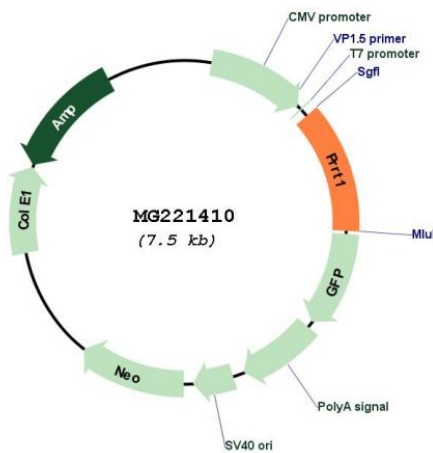
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**



**ACCN:** NM\_030890

**ORF Size:** 918 bp

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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="#">NM_030890.2</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>RefSeq Size:</b>           | 921 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>RefSeq ORF:</b>            | 921 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Locus ID:</b>              | 260297                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>UniProt ID:</b>            | <a href="#">O35449</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Cytogenetics:</b>          | 17 B1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Gene Summary:</b>          | Required to maintain a pool of extrasynaptic AMPA-regulated glutamate receptors (AMPA) which is necessary for synapse development and function (PubMed:29490264). Regulates AMPAR function and synaptic transmission during development but is dispensable at mature hippocampal synapses (PubMed:29490264, PubMed:31216424). Plays a role in regulating basal phosphorylation levels of glutamate receptor GRIA1 and promotes GRIA1 and GRIA2 cell surface expression (PubMed:31216424).[UniProtKB/Swiss-Prot Function] |