**Table S1 Primers used in this study**

|  |  |  |
| --- | --- | --- |
| **Fragments Use** | **Primers** | **Sequence (5'-3')** |
| Amplification ORF | *VmGlu2*-F | ATGATGTACTCAGTCTCTG |
| *VmGlu2*-R | TTACTTCCGGATAAGATG |
| Prokaryotic expression | *VmGlu2*-YH-F | CCGGAATTCATGATGTACTCAGTCTCTG |
| *VmGlu2*-YH-R | ATAGTTTAGCGGCCGCTTACTTCCGGATAAGATG |
| qRT-PCR | *EF1-α*-F | TGAGTTCGAGGCTGGTATCTCCAA |
| *EF1*-*α*-R | TGTCCATCTTGTTGATGGCGACGA |
| qRT-*VmGlu2*-F | AGGACGACCCCATTAACGAGA |
| qRT-*VmGlu2*-R | TGCTTCGAGCGATTCGGTGAC |
| Deletion of *VmGlu2* | *VmGlu2*-Up-F | CTGTCGAACGACAATCAATGG |
| *VmGlu2*-Up-R | caaaataggcattgatgtgttgacctccTGTCTGATCGGCCAGCATTAT |
| *VmGlu2*-Down-F | ctcgtccgagggcaaaggaatagagtagACGTAGTCTATAGCAGAGGAA |
| *VmGlu2*-Down-R | ATGACGTACCATCCTCTTTGA |
|  | *VmGlu2*-nest-F | GTTGCATACTCTGCATGCTAA |
| *VmGlu2*-nest-R | ACCATAAATGTTGAGACCAGG |
| *VmGlu2*-I-F | AGTCGGCTGCTTTTATACCTC |
| *VmGlu2*-I-R | ACAGCATCACCATCAAAGTCA |
| HPH-F | GGAGGTCAACACATCAATGCC |
| HPH-R | CTACTCTATTCCTTTGCCCTCGG |
| Complementary of *VmGlu2* | *VmGlu2*-Native-F | actcactatagggcgaattgggtactcaaattggttGGCCAAAATGCTGTCTGTTGC |
| *VmGlu2*-Native-R | caccaccccggtgaacagctcctcgcccttgctcacCCATCAAAGTCATCTATCACA |
| *VmGlu2*-ID-F | ATGATGTACTCAGTCTCTG |
| *VmGlu2*-ID-R | GACACGCTGAACTTGTGGCCGTT |
| Overexpression of *VmGlu2* | VmGlu2-OE-F | tttcgtaggaacccaatcttcaaaATGATGTACTCAGTCTCTGATTTCGAC |
| VmGlu2-OE-R | caccaccccggtgaacagctcctcgcccttgctcacTTACTTCCGGATAAGATGCC |