

Supplementary Materials: Preparation and Functional Identification of a Novel Conotoxin QcMNCL-XIII0.1 from *Conus quercinus*

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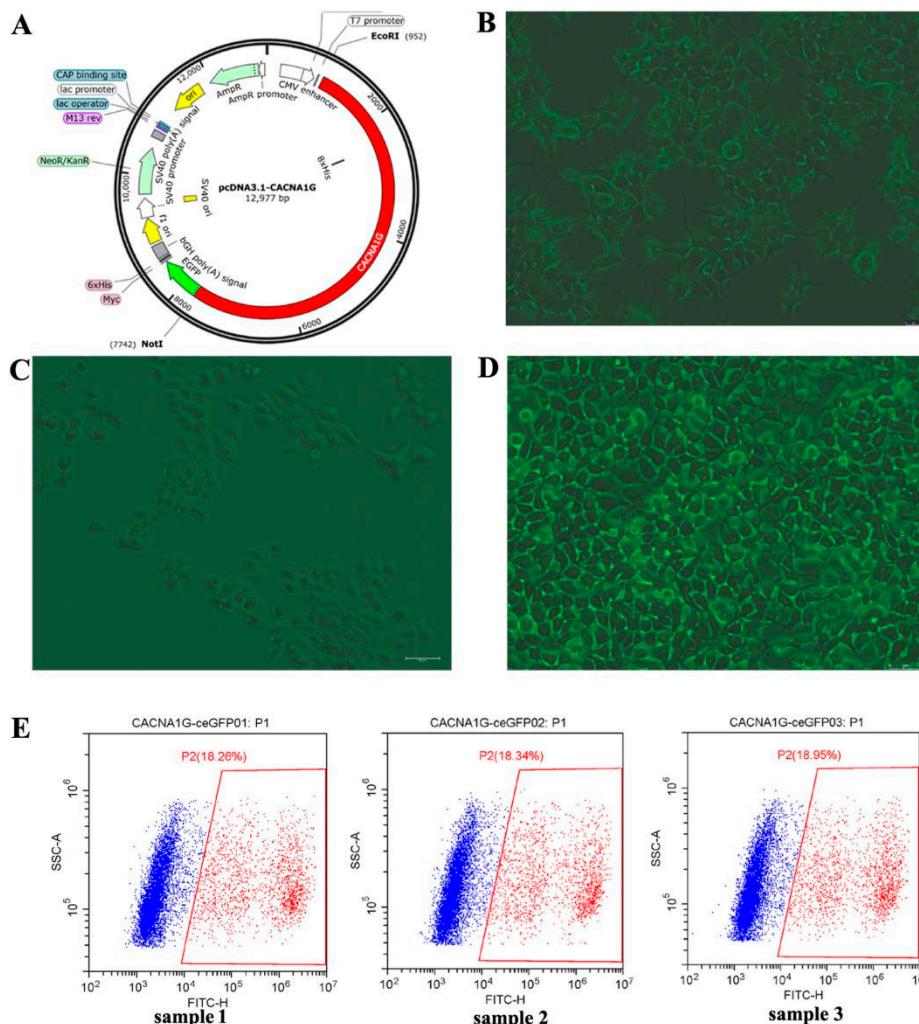
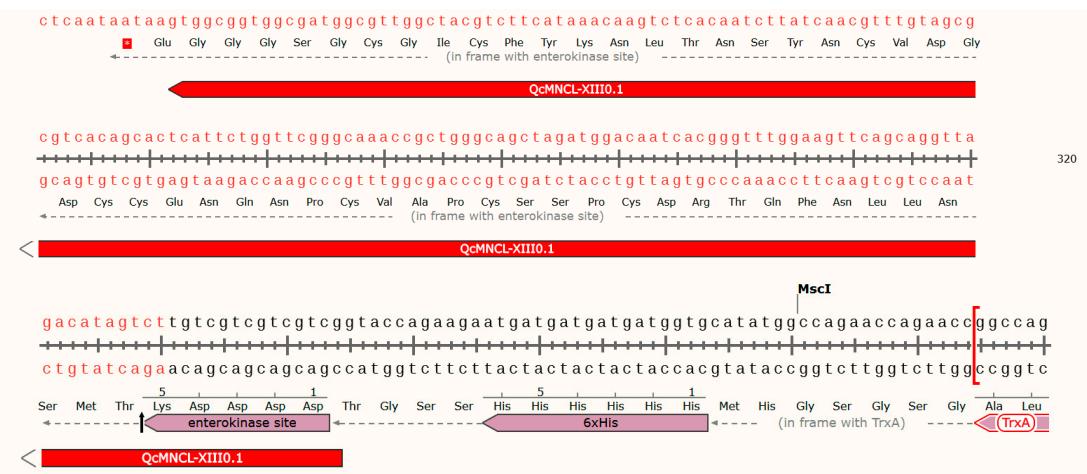


Figure S1. The 293T cells transfected with pcDNA3.1-CACNA1G-ceGFP detected by GFP fluorescence microscopy. (A), The map of pcDNA3.1-CACNA1G-ceGFP; (B), Fluorescence microscopic observation after 24 h; (C), Positive control group; (D), Fluorescence microscopic observation after 36 h; E, Flow cytometry fluorescence detection after 36 h.

Document S1 Sanger sequencing of QcMNCL-XIII0.1 gene.

- (1) The map of the QcMNCL-XIII0.1 gene of constructed PET32a-QcMNCL-XIII0.1 expression vector and nucleic acid sequence.

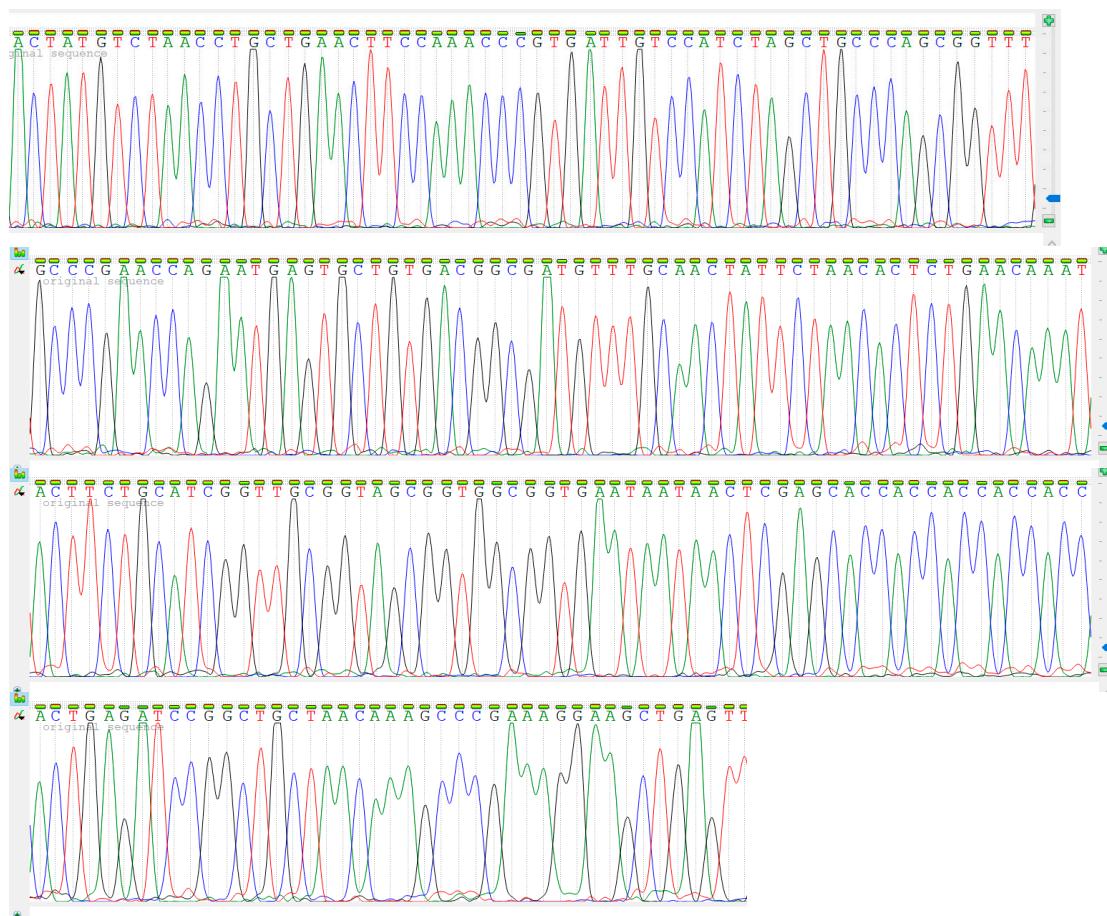


(2) Analysis and validation of original transcript sequence of the QcMNCL-XIII0.1 gene.

A. The nucleic acid sequence of the QcMNCL-XIII0.1 gene.

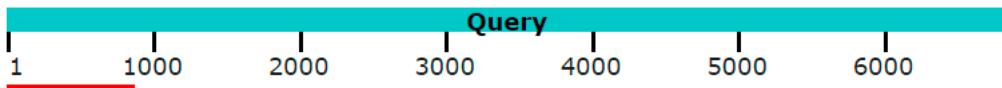
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ACTATGTCTAACCTGCTGAACTTCAAACCCGTATTGTCCATCTAGCTGCCAGCGTTG  
CCCGAACCGAGAATGAGTGCTGTGACGGCGATGTTGCAACTATTCTAACACTCTGAACAAA  
TACTTCTGCATCGGTTGCGGTAGCGGTGGCGGTGAATAATAACTCGAGCACCACCA  
ACCACTGAGATCCGGCTGCTAACAA
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(3) Fluorescent peaks in the QcMNCL-XIII0.1 gene following Sanger sequencing.



Document S2 Sanger sequencing of CACNA1G (6783bp) gene.

1. The 5-terminal sequencing of CACNA1G (6783bp) gene.

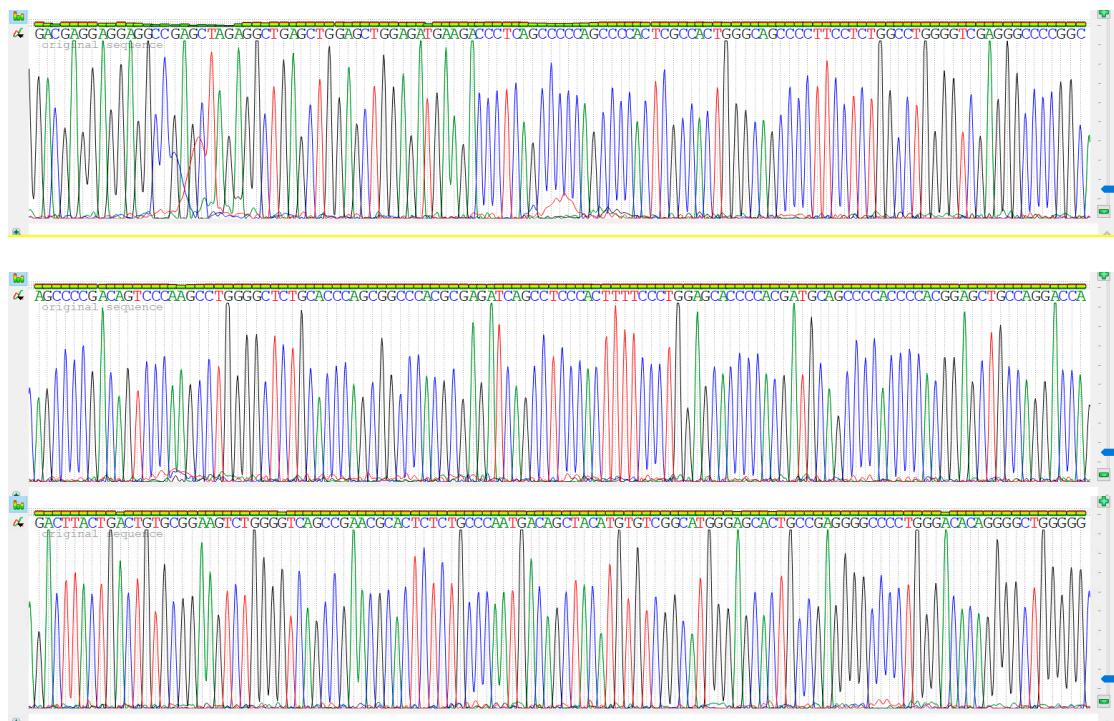


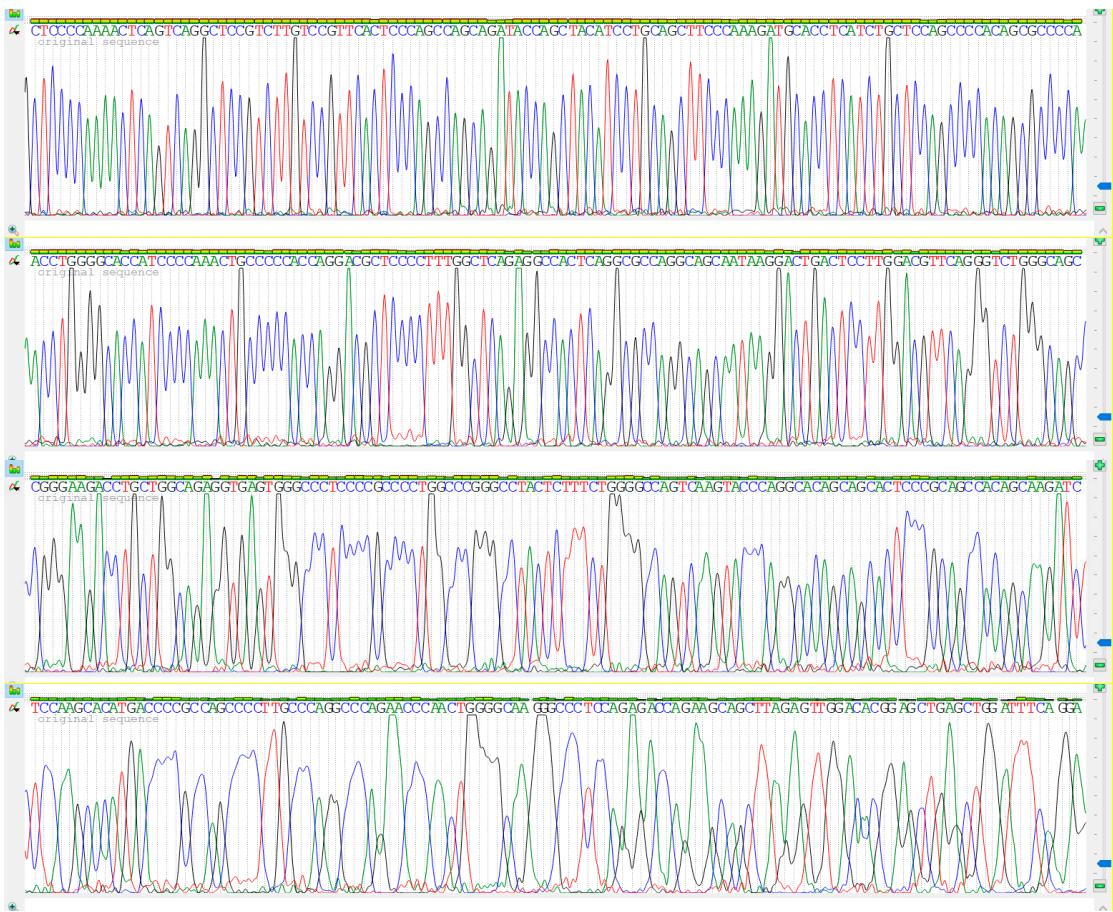
Sequence alignment between the 874bp nucleic acid sequence and CACNA1G (6783bp) gene.

The 874bp (red section) nucleic acid sequence of the CACNA1G gene.

ATGGACGAGGAGGAGGATGGAGCGGGCGCCGAGGAGTCGGGACAGCCCCGGAGCTTC
ATGC GGCTAACGACCTGT CGGGGGCGGGGGCCGGCCGGGGCAGCAGAA
AAGGACCCGGGCAGCGCGACTCCGAGGCAGGGCTGCCGTACCCGGCGCTGGCC
CCGGTGGTTCTTCACTTGAGCCAGGACAGCCGCCCGGGAGCTGGTGTCTCCGCAC
GGTCTGTAA CCCCCTGGTTGAGGCATCAGCATGTTGGTCATCCTCTCAACTGCGTGA
CCCTGGGCATGTTCCGGCCATGCGAGGACATGCCCTGTGACTCCCAGCGCTGCCGGATC
CTGAGGCCTTGATGACTTCATCTTGCCCTCTTGCCGTGGAGATGGTGGTGAAGAT
GGTGGCCTGGGCATCTTGGAAAAAGTGTACCTGGAGACACTTGGAACCGGCTT
GA CTTTTCATCGTCATCGCAGGGATGCTGGAGTACTCGCTGGACCTGCAGAACGTCAG
CTTCTCAGCTGTCAAGCACAGTCCGTGTGCTGCGACCGCTCAGGGCATTAA CCGGGTGC
CCAGCATGCGCATCCTGTACGTTGCTGGATACGCTGCCATGCTGGCAACGTC
CTGCTGCTCTGCTTCTCGTCTTCACTTCCGCACTCGCTGGCGTCCAGCTGTGGGCA
GGGCTGCTCGGAACCGATGCTCCTACCTGAGAATTCA GGCCTCCCCCTGAGCGTGG
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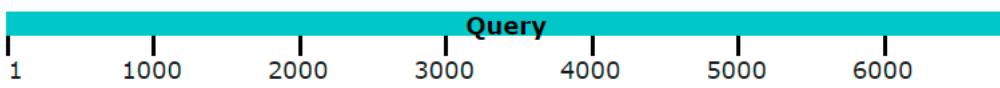
2. Fluorescent peaks in the 874bp nucleic acid sequence of the CACNA1G gene following Sanger sequencing.





3. The 3-terminal sequencing of CACNA1G (6783bp) gene.

The 832bp (red section) nucleic acid sequence of the CACNA1G gene.



Sequence alignment between the 832bp nucleic acid sequence and CACNA1G gene.

TCATCTGCTCCAGCCCCACAGCGCCCCAACCTGGGGCACCATCCCCAAACTGCCACCA
 GGACGCTCCCCTTGGCTCAGAGGCCACTCAGGCGCCAGGCAGCAATAAGGACTGACTCCT
 TGGACGTTCAGGGTCTGGCAGCCGGAAAGACCTGCTGGCAGAGGTGAGTGGGCCCTCCC
 CGCCCTGGCCGGCCTACTCTTCTGGGCCAGTCAAGTACCCAGGCACAGCAGCACTC
 CCGCAGCCACAGCAAGATCTCAAGCACATGACCCCCGCCAGCCCCCTGCCAGGCCAGA
 ACCCAACTGGGGCAAGGGCCCTCCAGAGACCAGAACAGCAGCTTAGAGTTGGACACGGAGCT
 GAGCTGGATTCAGGAGACCTCCTGCCCCCTGGCGGCCAGGAGGAGCCCCATCCCCACGG
 GACCTGAAGAAGTGCTACAGCGTGGAGGCCAGAGCTGCCAGCGCCGGCTACGTCCTGG

CTGGATGAGCAGAGGAGACACTCTATGCCGTAGCTGCCTGGACAGCGGCTCCAAACCCC
ACCTGGGCACAGACCCCTTAACCTTGGGGCCAGCCTCTGGGGGCCTGGAGCCGGCC
CAAGAAAAAACTCAGCCGCCTAGTATCACCATAGACCCCCCGAGAGCCAAGGTCTCG
GACCCCGCCCAGCCCTGGTATCTGCCTCCGGAGGAGGGCTCCGTCCAGCGACTCCAAGGAT
CCCTGGCCTCTGGCCCCCTGACAGCATGGCTGCCTGCCCTCCCAAAGAAAGATGTGC
TGAGTCTCTCCGGTTATCCTCTGACCCAGCAGACCTGGACCCCC

Fluorescent peaks in the 832bp nucleic acid reverse complementary sequence of the CACNA1G gene following Sanger sequencing.

