

Supplementary Materials: Molecular Characterization and Biological Effects of a C-Type Lectin-Like Receptor in Large Yellow Croaker (*Larimichthys crocea*)

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                                     GAAGTTGAAGTCTCTGCAAACCTCACAAAAA
1   ATGATGAACCTCATCAAAAAAGGTTGCCCTGGGAATCAGAGGACACGCAGTCTCTTT
1   M M N L I K K K G A L G I R G H A V L F
61  GTTTTATCAGCCTTATGGTTTCTGTAGCTGCAGACAGTGCAGAGGGACAGGAGTCTTAT
21  V F I S L M V S V A A D S A E G Q E S Y
121 CTTAAGCTGAGACTAGACCTTTTGAAGAAAAGCTACAGTAAGCTGTGCAGTGAATACACC
41  L K L R L D L L K K S Y S K L C S E Y T
181 AACCTGGCACAGAAGTCTCAGTCCAGTGCCTAACTGTTACGAGTGCCTGACGACAAA
61  N L A Q N C S V P V P N C Y E C P D D K
241 TGGCTTCTAGTAGGGACCAATGCCTCCTCCTCGAGACTGACAGGAACGACTGGCTTAAT
81  W L L V G D Q C L L L E T D R N D W L N
301 AGTTCAAAAAAGTGTGAAGAGATGGGCGCCATCTTGCCATCTTGACCACCACAGAACAG
101 S S K K C E E M G A H L A I L T T T E Q
361 CATGAAGCTGTGAGAAAAGAAGGCAGAATGCTCGTGGGTTATACACATTCTACTGGATG
121 H E A V E K E G R M L G G L Y T F Y W M
421 GGACTGACTGACATTGAGAAAAGAAGGAGAGTGAAATGGGTGGACAACTCAATAGTTAAA
141 G L T D I E K E G E W K W V D N S I V K
      ◆ ◆
481 AACACACACTGGAAGGTTGGGACATCAGAACCAGACAACAACCAAGTCTGGTGGGGAAGAG
161 N T H W K V G T S E P D N N Q S G G E E
      ◆ ◆ ◆
541 GGAGAGGACTGTGCGGTAGTGGACAGCTACACTCAGAGCTGGTACGATGTTCCCTGCTCC
181 G E D C A V V D S Y T Q S W Y D V P C S
      ◆ ◆ ◆ ◆
601 TACTTGATCCACGAATCTGTCAGGTCAACGCCAACTGCTCAAGTGAAGCCTCTCCGCAC
201 Y L Y P R I C Q V N A K L L K *
661 CACTGCAGACCACCACTCAATAACAATAATTGATAGCTATCGATTCTTTATTGAAAAA
721 CTTCAGGCATCAATCTACAATAAACAATTCTGACTCTAAAAA

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Figure S1. Nucleotide and deduced amino acid sequences of LycCTRL cDNA. In the nucleotide and deduced amino acid sequences of LycCTRL cDNA, a typical mRNA polyadenylation signal (AATAAA) are shown in italic in the 3'-UTR. The transmembrane domain is boxed and the intracellular domain is marked by broken line. The C-type lectin-like domain predicted by SMART is underlined. The conserved cysteine residues are highlighted in dark grey. Ca²⁺ binding site 1 are marked with solid diamond. Ca²⁺ binding site 2 are marked with hollow diamond.

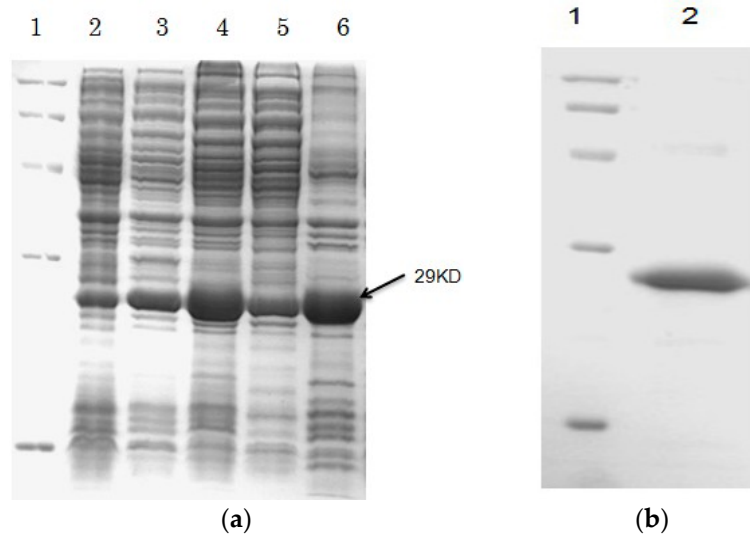


Figure S2. Production and purification of recombinant LycCTRL protein. (a) Lane 1: protein molecular weight marker; Lane 2: induced pET-His in *E. coli* BL21; Lane 3: non-induced pET-LycCTRL in *E. coli* BL21; Lane 4: induced pET-LycCTRL in *E. coli* BL21; Lane 5: supernatant from induced pET-LycCTRL in *E. coli* BL21; Lane 6: inclusion body from induced pET-LycCTRL in *E. coli* BL21; (b) Lane 1: protein molecular weight marker; Lane 2: purified rLycCTRL protein.

Table S1. Oligonucleotide primers used for cloning and expression analyses.

Primer Name	Nucleotide Sequence (5'→3')	Purpose
5' outer	ACACTCGTAACAGTTAGGCACT	RACE PCR
5' inner	AGAAACCATAAGGCTGATGAAA	
3' outer	GAAATGGGTGGACAACTCAATA	
3' inner	GGGACATCAGAACCAGACAACA	
CTRL-gF	GAAGTCTCTGCAAACCTCACAAA	Genome cloning
CTRL-gR	GTCAGAATTGTTTATTTGTAGAT	
CTRL-DistF	CGGAATTCGAGGGACAGGAGTCCATCTA	Real-time PCR
CTRL-DistR	CCCGGACTTTCACTTGAGCAGTTTGGCGT	
CTRL-RF	CCGGAATTCATGATGAACCTCATCAAAAA	Recombinant expression
CTRL-RR	CCCAAGCTTTCACTTGAGCAGTTTGGCGT	
Actin-F	GACCTGACAGACTACCTCATG	β -actin amplification
Actin-R	AGTTGAAGGTGGTCTCGTGGA	