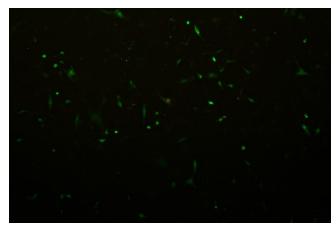
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61
121
181
241
301
361
421
481
541
601
721
781
841
901
961
1021
               AATCAAATCA ATTGTTTGCT
                                                                                                         AAACTTTCTT
                                                                                      CATTACAATA
TTCTTAACAG
                                                                                       TTTCCCATAA GCTTACATTG
                                                                                      GCATCAAACC CCCTGTGAAA
TTTAGGATTC CAGAATAAAT
ATTCATTATA TGAAATTGTT
                AAATGCATAT TGTTATATTA CAGTATATCC GAAATATTCC
ATGCAGAAGT ACAGGATTTC ATCATCCCAC TTCATGCTGA
TGTATATAAC CTGCAAATCT CCACAGAGGG GCAGAACAAC
                                                                                      TAAACACTGT
ACGGAAAATC
                                                                                       ACTGACAGAA CAACTGAAGG
                ACCTICITTA CICTICICCO TGICATGITA THAATATGG CAGITITICI AGAICAITCE
GIGITITIAA TCICCATCIC ATTCAATTAG TAATTAATTA ATTGAAAAAA AAGIGITATG
AATTACIGIA GIAGIAGATA GAAGIACTAT AGAAGTAAAA ATGITAAATC ATTTATTIC
  1081
1141
                AATTACTGTA GTAGTAGATA GAAGTACTAT AGAAGTAAAA ATGTTAAATC ATTTTATTTC ATGAAATTAA AAAGTGTAAA ATTGAAATTC TAGCTGTATT TCCTTAATTG TTTCCTGATT CGGTGACACT GAAAATGACT CCCCTGTCTT CCCTGCGGAT CTCTTT
  1201
```

**Supplementary Figure 1.** Sequence of large yellow croaker IL1 $\beta$  promoter cloned. The IL1 $\beta$  promoter plasmid (pGL6-IL1 $\beta$ ) contains a 1384bp promoter sequence upstream of the IL1 $\beta$  initiation codon(ATG).

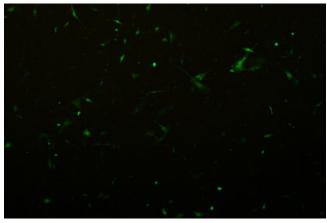
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ATCAAGGCAG CAAGACAAAA CTAATTCCCT GACAAACTCC AATATCAAAG TTTTTATTCT TTTGGACGTT ACATGAATCA
61
121
181
241
361
421
481
541
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661
721
781
841
901
961
1021
1081
                                   CAAGGCGTAT TCTAATGATA ACAGACAACT
TGATTCAGCA GAACAGTAAA TGTTTCCATG
                                                                                                                                                      TGATAACTCG CATTTCTTCT GAACCCGATG
TTTGCTCATC ACTCTCTCTG TGGATTTTC
                                  TGATTCAGCA GAACAGTAAA TGTTTCCATG TTTGCTCATC ACTCTCTCT GGATTTTTC
AGAGACAGAT TTTTTTTTA TAGTTAGTCT TTGTGAGGCT GACATATTCT GACAAACCC
ATATCCTGGA CGCTTTCCAT AATTTAACTT GATCGTGCA CTTGTTCGAT CCCCCCCTTG
ATAAATATAT AATTCAAACT GAAACTCTT CTGGTAAAAA GTGTAGTCTT TAAATCCAAG
ATTACTCAGG CCACTTAGT CATATTTTTC AGATTACACA ACCTCAGTAT GTAAAATGTG
ATAAGCCCCT TTAAAACAAG TAAAAACCTT AAGAAAATGA ATAGTAACAG GAGTGCCCCA
GTAGGTGGTG TCCCTGGAGG CATTCACCAG CCCTCATCCA ATCTTAGGAC ATGGCATGTA
AAATCCTATT CAGTCAATC TACTTCAGTG GATGGTAAAA AGTAAAAACC CTTCAATAAA
CAGGGGTTAT TATGAAAATC ACTGACATCT GTGTCACCT GGGAAACCC AGTGTCCTAA
TAAGTTGAAA GGACTGCCTG AACTCACAGT AGAAAATTAC AAATGGGTAA TATTATTGGA
TTATTTTAAT CATTTTTATA GACAAAGTTA AGTATAACGAC ATGGGAACCT AATGGAACCT
TTATTTTAAT CATTTTTATA GACAAAGTTA AGTATAACGAC ATGGAACCTTA AATGGAACCT
ATAATCGGC CACTAAACCG CTGAAACCA ACGCACCTTC ACGCACCTTC AACGCCCCTA
                                  ATAATCGGAC CACTAACGGG CTGAAAACCA
TGAAAGATTA ACATATTTCT GACTCACAGC
CTTACAGAAT GTGGGATGAC GATATGGACA
                                                                                                                                                      AGTAGCTGCC
TAAACATTGT
                                                                                                                                                                                             AGGAACCCTG
TATCAATACT
                                                                                                                                                                                                                                    ACAGGCCCTA
GAGATATGAT
                                                                                                                                                                                             ACCTCATTGT
GTTTCATGAC
TTAATTATAG
                                                                                                                                                       TAAATGATCC
                                                                                                                                                                                                                                     TTTATCACTT
                                  1201
1261
1321
1381
    1441
1501
    1561
1621
1681
                                  CTTATTATT CTTAAAATAA TCATTTTAAC
AAAGTTCCCG CTGCTTCCTC TGGTCATTTT
AAATGAATCA CGGATGCTG ACCGGATGCT
                                                                                                                                                      TTTATCTTCA TTTTAAATAT
GAAGATGGAC ACTCCTCGCC
TGACGTTTGA TTCCGGGCCT
                                                                                                                                                                                                                                   AAATGAGGAT
ATCTTCATCA
                                  GGTATTGGGA AATCCCTCCA GTCTGAAGAA TATAAAATGA AAGCTCATCG CAAAGAACAA
CAACTCCTTC TGACTCCTGA CAGAACCTCA GCATCAGTGG AAACTCAAGT CAAGTGCTTC
CCAGCAGCGA AAC
    1741
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**Supplementary Figure 2.** Sequences of large yellow croaker IL6 promoter cloned. The IL6 promoter plasmid (pGL6-IL6) contains a 1873bp promoter sequence upstream of the IL6 initiation codon(ATG).











**Supplementary Figure 3.** The overexpression of FFAR4 in large yellow croaker macrophages. After 24h overexpression, the gene expression was observed under a fluorescence microscope. A: pcDNA3.1-EGFP-FFAR4; B: pcDNA3.1-EGFP.