Supplementary Data

Effects of pH and NaCl on the Spatial Structure and Conformation of Myofibrillar Proteins and the Emulsion Gel System—Insights from Computational Molecular Dynamics on Myosin of Golden Pompano

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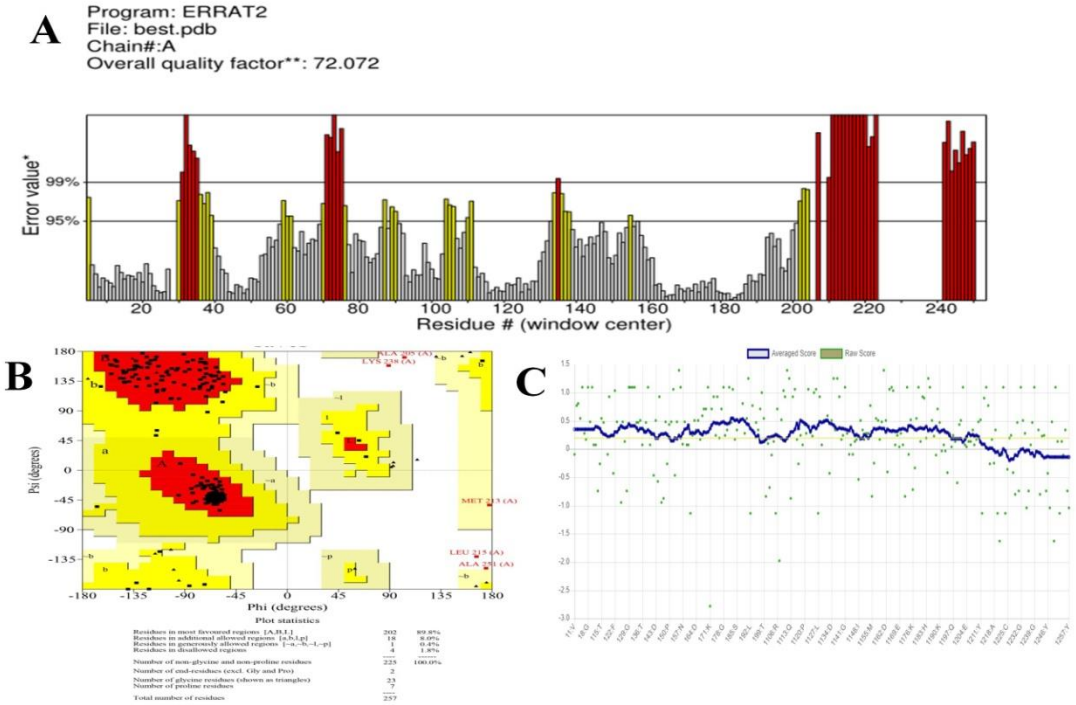

Figure S1. Evaluation of myosin structure in golden pomfret as modeled by ab initio design using TrRosetta server: (A) ERRAT analysis; (B) VERIFY3D analysis; (C) Ramachandran plots.

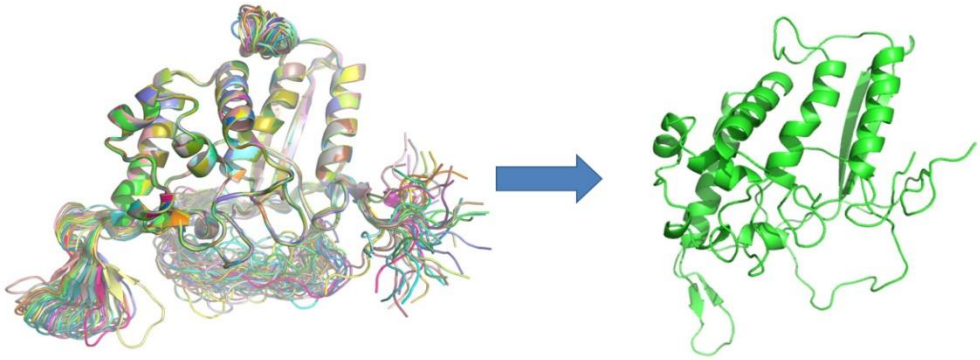

Figure S2. Schematic diagram of myosin structure optimization in golden pomfret fish.

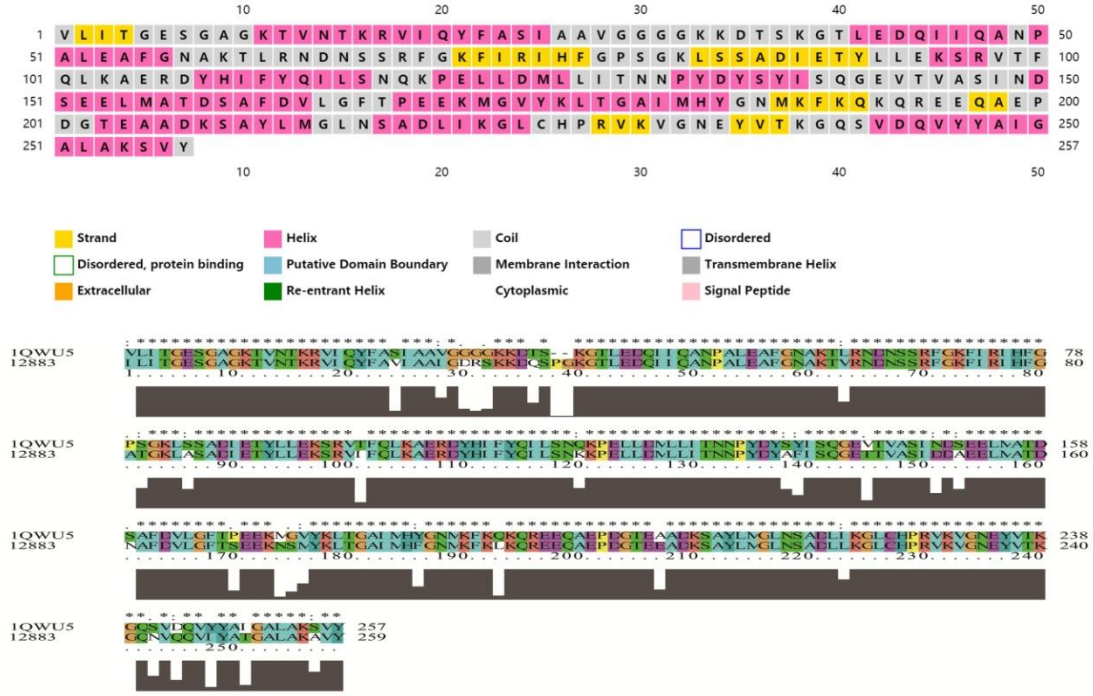

Figure S3. Amino acid sequence of golden pomfret myosin and the prediction of secondary structure of golden pomfret myosin using SignalP 5.0 and TPSPRED servers.

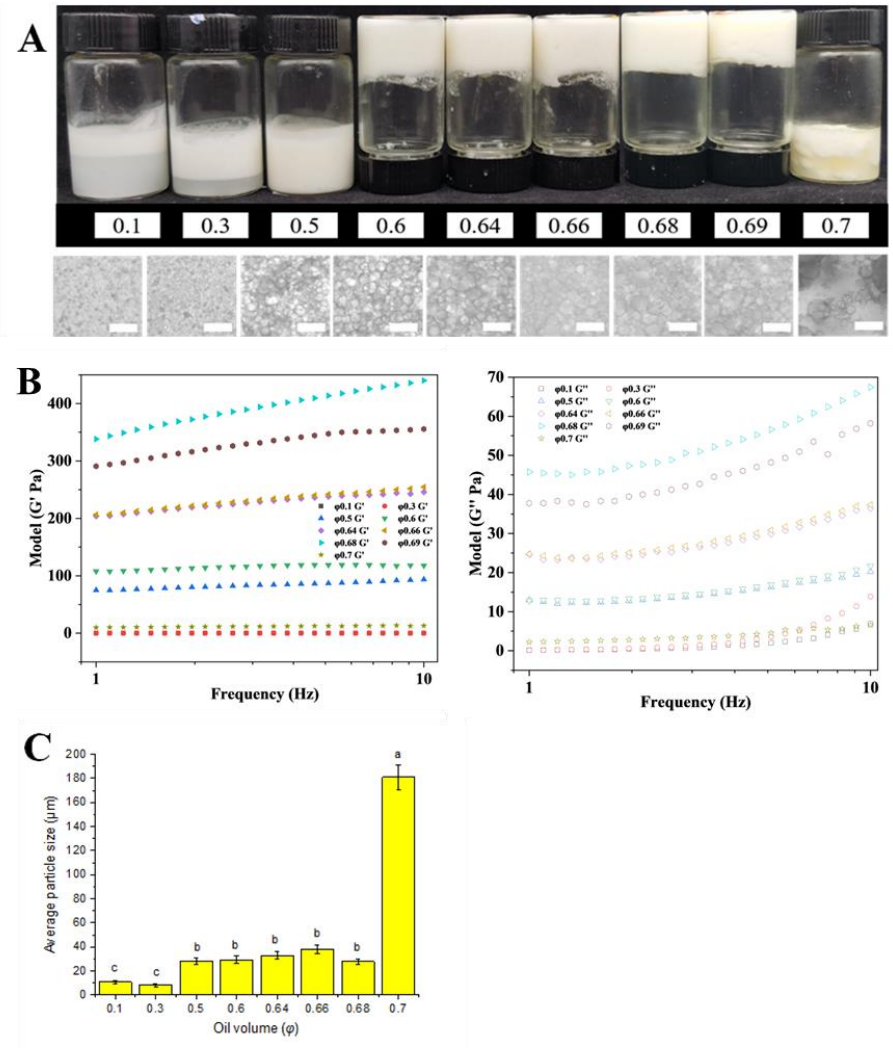

Figure S4. Effect of oil ratio (φ) on emulsion gels (c = 2.5 wt%, pH 7.0, NaCl 0.6 mol/L): (A) Visual appearances (top row) and light microscopy images (bottom row) of emulsion gels with different oil ratio (scale bar = 100 μm); (B) Effect of shear frequency (frequency 1-10 Hz, strain 0.5%) on the elastic modulus (G′, solid) and viscous modulus (G", hollow) of emulsion gels with different oil ratios (0.10-0.70); (C) Average particle size of emulsion gel (d3, 2), the letters denote significance as analyzed by Duncan's Multiple Range test..

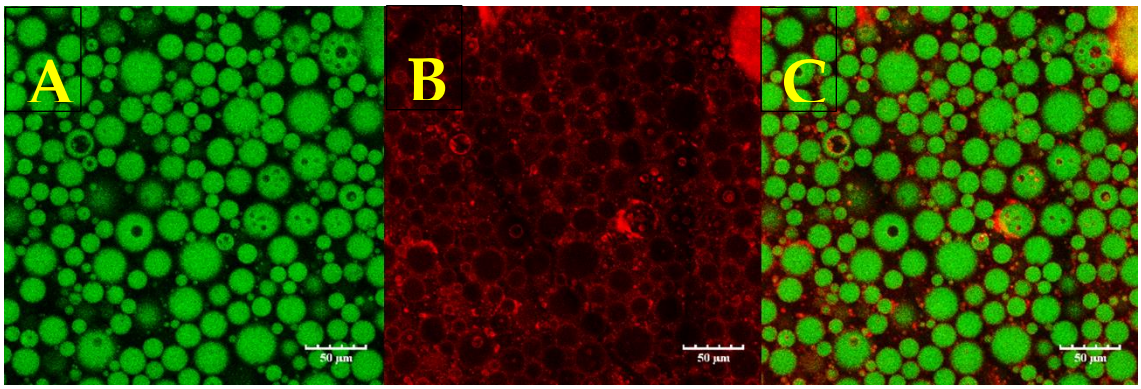

Figure S5. CLSM images of emulsion gel with 2.5% protein concentration, 0.68 oil ratio (φ), pH 7.0 and NaCl 0.6 mol/L. (A) Image with oil stain (Nile red); (B) Image with protein dye (Nile blue); (C) Image with double staining of oil and protein.