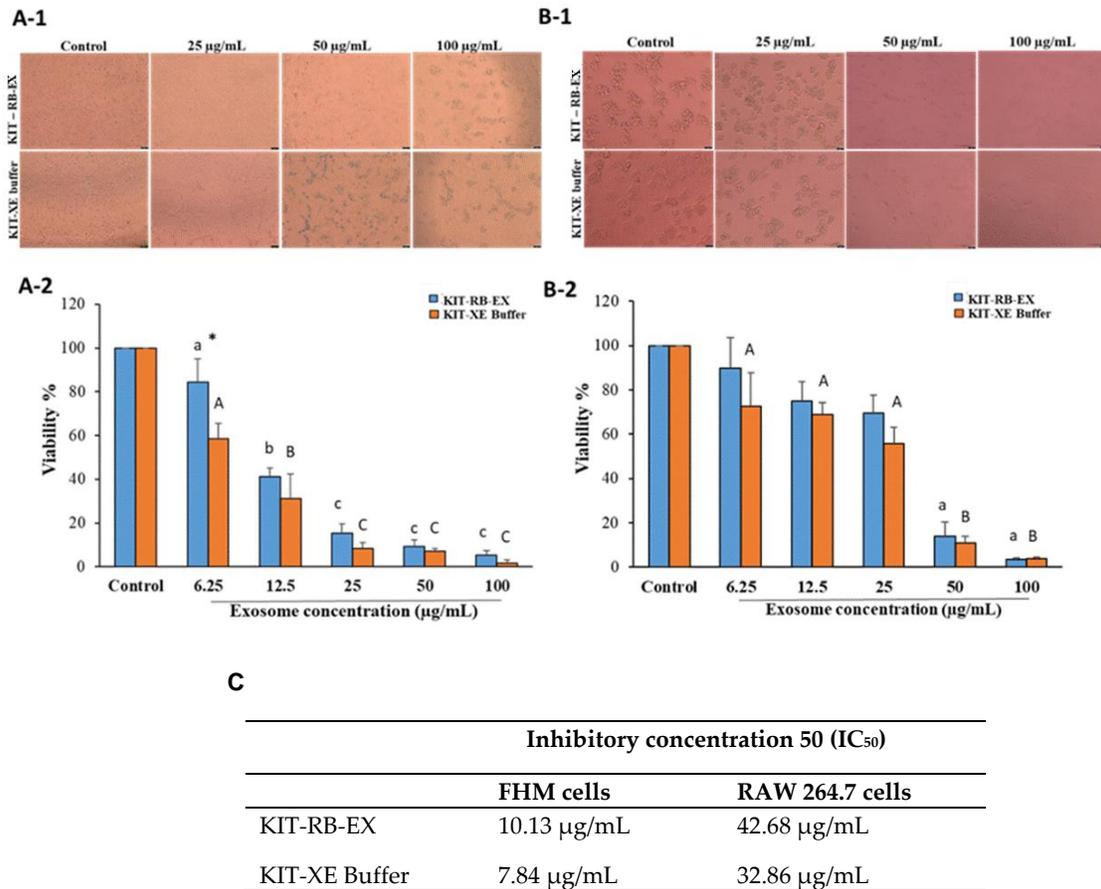
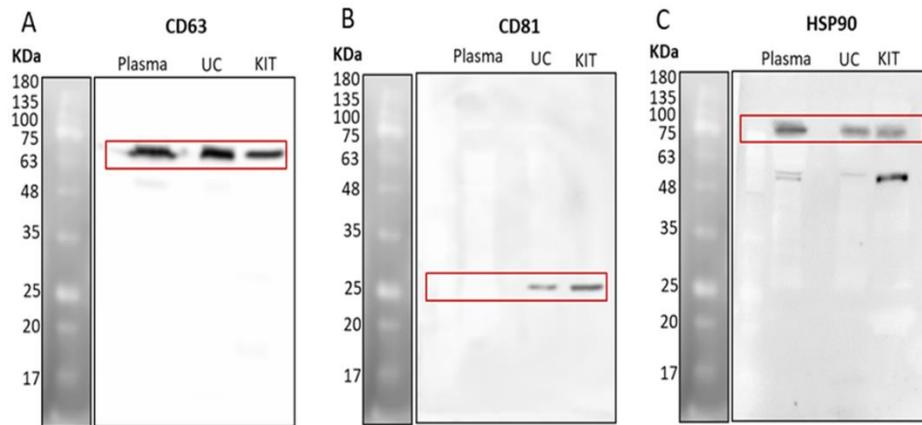


## Supplementary figures



**Supplementary figure 1.** Cytotoxicity of the plasma derived exosomes of rock bream isolated by Exoeasy Maxi kit on the fathead minnow (FHM) fish cells and RAW 264.7 mammalian cells. Representative images illustrate the (A-1) FHM and (B-1) RAW 264.7 cell morphology of kit-isolated exosome-treated (KIT-RB-EX) cells and of those treated solely with XE buffer (KIT-XE buffer) as observed under an inverted light microscope (Leica DMi8, Germany) with different exposure conditions (control, 25, 50, and 100 µg/mL). Nuclease free water was used as a control. Scale bar, 200 µm. Graphs depict the cell viability of (B-2) FHM and (C-2) RAW 264.7 cells upon kit-isolated exosome treatment at different concentrations (6.25-100 µg/mL) and XE buffer treatment. The XE buffer treatment involved preparing XE buffer with nuclease-free water to have the same concentration as that of each sample of the kit-isolated exosomes and using a volume equal to the sample volume (100 µL) to treat the cells. Exosome samples were prepared to their respective final concentrations using a 1 mg/mL stock solution. (C) IC<sub>50</sub> values of KIT-RB-EX and KIT-XE Buffer for FHM and RAW 264.7 cells. Data represented as mean ± standard error (SE). For the individual treatments, one-way ANOVA followed by Tukey's multiple comparisons test was performed to find significant differences between treated samples having different concentrations. Lowercase and uppercase letters denote the significant differences among control and KIT-RB-EX and KIT-XE buffer treated samples, respectively. An unpaired two-tailed *t*-test was performed to find significant differences between the KIT-RB-EX and KIT-XE buffer treated samples. Asterisk (\*) indicates statistical significance at  $p < 0.05$ .



**Supplementary figure 2.** Full gel blots correspond to immunoblotting analysis of exosome protein markers of rock bream plasma derived exosomes by differential ultracentrifugation (UC) and Exoeasy Maxi kit. Proteins (16  $\mu$ g protein per lane) were separated by SDS-PAGE and immunoblotted with antibodies against (A) CD63, (B) CD81, and (C) HSP90. CD63~ 63 kDa, CD81~ 26 kDa, HSP90~ 90 kDa. The immune reactive band for each antibody is marked in red box.