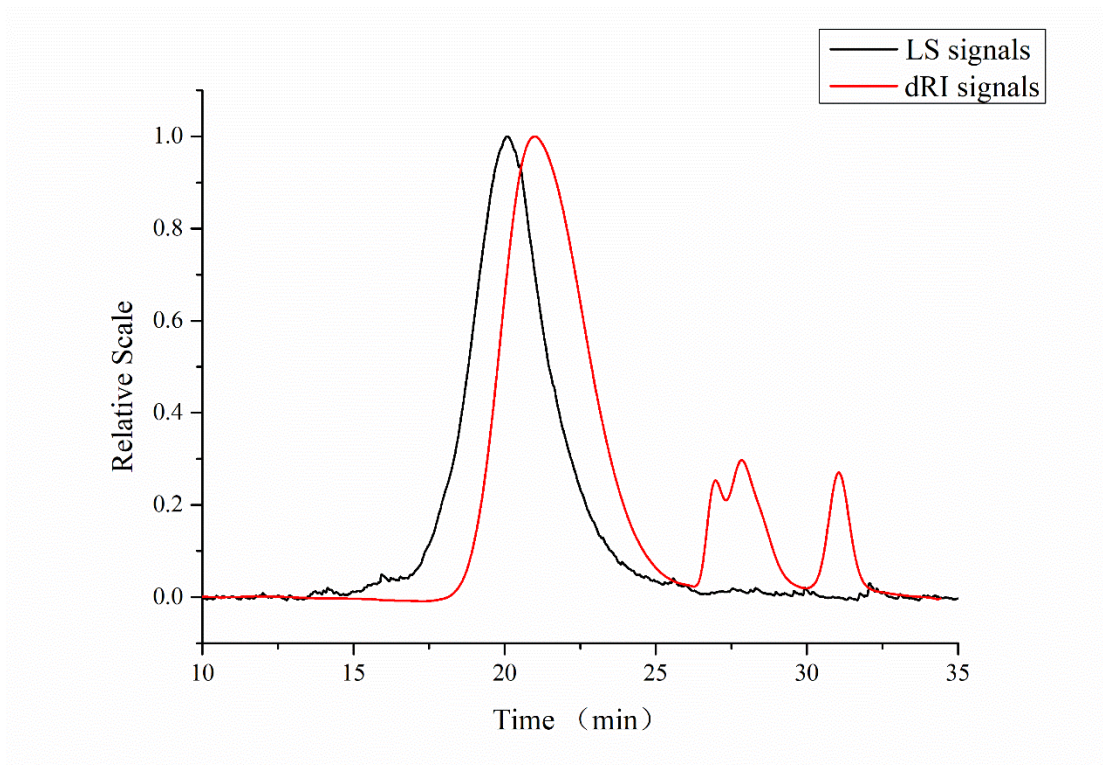
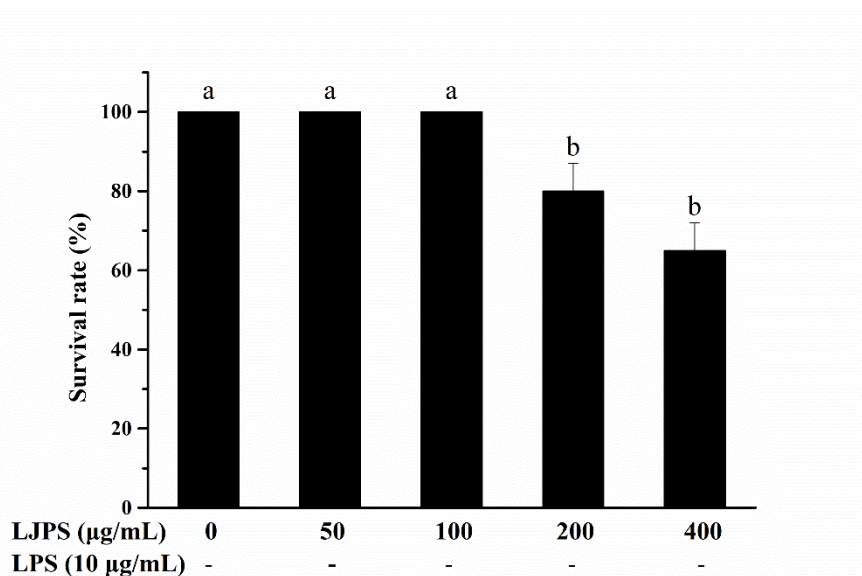


Figure 1. Monosaccharide composition of LIPS determined by gas chromatograph. (a) GC spectrum of acetylated aldonitrile derivatives of seven standard monosaccharides; (b) GC spectrum of acetylated aldonitrile derivatives of LIPS.



**Figure 2.** HPSEC profile with the static light scattering and refractive index signals of the molecular weight distribution of LJPS.



**Figure 3.** Toxic effect of LJPS on survival rate of zebrafish embryos. After treatment with LJPS, the survival rate was determined at 3 dpf by counting the surviving hatched embryos. All results were represented as means  $\pm$  SD of three independent experiments. Different superscript letters indicate significant differences from each other with  $p < 0.05$  (Turkey's multiple-range test).