Abstract
In this study, juvenile rainbow trout fed with commercial pellets containing kefir provided increased nonspecific immune response and improved disease resistance against lactococcosis and yersiniosis. Kefir was used as a feed supplement at 2, 5, and 10% inclusion rates and several nonspecific immune parameters were observed at day(s) 1, 7, 14, 21, 28, and 35 following the treatment. A total of four experimental groups, including control, was established. The various parameters including hematocrits, nitroblue tetrazolium positive neutrophils, total leukocytes, serum lysozyme activity, total serum protein, and immunoglobulinM(IgM) levels were examined. As a result of this study, kefir-fed fish had an increase in measured nonspecific immune parameters, especially in the group received the 10% kefir treatment. The challenged fish fed with kefir-supplemented diet showed a better survival rate against Lactococcus garvieae than Yersinia ruckeri. Kefir supplementation reduced fish mortality significantly against L. garvieae.