

**Supplementary Figure 1.** Validation of the glucose transporter 1 (GLUT1) polyclonal antibody (Abcam, ab128033). Serial cryosectioning of the SW milkfish gill showed identical labeling location (number 1-8) of the GLUT1 antibody and *Ccglut1* probe signals. **(A)** Double immunofluorescence staining of GLUT1 (green labeling with numbers) and Na+, K+-ATPase (NKA; red labeling). **(B)** *In situ* hybridization of *Ccglut1* counterstained by the NKA antibody. **(C)** Negative control. **(D)** The immunoblot of GLUT1 with gill crude homogenates of FW and SW milkfish showed two major immunoreactive bands with the molecular mass at 55 kDa and 45 kDa (arrowheads), respectively. **(E)** The immunoblot of GLUT1 with gill membrane fraction showed a single major immunoreactive band with a molecular mass at 55 kDa (arrowhead). **(F)** The negative control of immunoblot with gill crude homogenates of FW milkfish using bovine serum albumin to replace the GLUT1 antibody showed no immunoreactive band. F, filament; L, lamella; FW, fresh water; SW, seawater.