



Figure S1. Insulin downregulates PHLPP-1 level in young hearts. Young rats were experienced exercise training for 10 weeks. Trained or untrained young hearts were subjected to *in vivo* ischemia and reperfusion. Quantification of PHLPP-1 immunoblots results shown that PHLPP-1 protein level in trained young group (young+Ex) showed no significant change comparing with untrained young group (young). But, administration of insulin during reperfusion, protein level of PHLPP-1 was markedly downregulated in untrained young group and further downregulated in exercise trained young group. Values are mean \pm S.E., n=5 per group.*P < 0.05 vs. Young+|R|; #P < 0.05 vs. Young+Ex+|R|