



Figure S1. Potential mechanisms responsible for the protective effect of cardiac corin overexpression on reduction of cardiomyocyte death and infarct size in acute MI. Corin may inhibit the intrinsic apoptotic pathway by regulating Bcl-2 family proteins. For example, corin overexpression upregulated phosphorylation of Bad and expression of Bcl-xl, Bcl2. At the same time the expression of Bak was downregulated, shifting the balance from a pro-apoptotic to an anti-apoptotic state, and diminishing caspase 9 and caspase 3 cleavage. Alternatively, corin overexpression may regulate the activation of caspase 8 and the Bcl-2 family proteins through cross-talk between the extrinsic and intrinsic pathways, followed by reduced cardiomyocyte death and infarct size. Solid arrows show the well-established apoptotic pathway; dotted arrows and question marks (?) indicate potential, but unknown mechanisms or pathways; the green or blue-shaded text boxes indicate molecules probed in the present study; the white filled boxes indicate untested, but well-accepted effectors. The “↑”, “-” and “↓” indicate upregulated, unchanged and downregulated effects, respectively, noted in this study.