

Supplemental Material:

Supplemental Methods

Protein and Lipid Oxidation: Protein carbonyl formation was measured using the Oxyblot system (Millipore) according to the manufacturer's instructions and as described previously ⁽¹⁾. Malondialdehyde (MDA) content indicative of lipid peroxidation was measured using a Bioxytech MDA-586 kit (OxisResearch, Burlingame, Ca) according to the manufacturer's instructions and as described previously ⁽¹⁾.

Supplemental Figure Legends

Figure Legends:

Supplemental Figure 1 – Cold crystalloid cardioplegia reduces cardiac

performance. A) Representative experiment of cardioplegia/reperfusion in isolated rat hearts. a. – baseline measurement b. – induction of cardioplegia (2 min delivery) , c) Cardioplegic arrest 30 min (1 min CP delivery) d 60 min Cardioplegic arrest (1 min CP) e. 90 min CP (1 min delivery) f. Start reperfusion. g-h: 5, 10, 20 ,30 min reperfusion. **B)** Tracings from individual hearts subjected to CP and reperfusion with or without 1 μ M Rottlerin.

Supplemental Figure 2. Rottlerin does not alter wet/dry tissue weight. None of the treatments significantly effected wet/dry tissue weights indicating no gross increases in tissue edema. Minimum n=6, except CP + Rott + Paxilline 1 μ M , n=4. One Way Anova,.

Supplemental Figure 3. The BK_{Ca++} channel inhibitor paxilline blocks beneficial effects of rottlerin on post-CP cardiac function. Experimental conditions similar to figures 1 and 2. Cotreatment with rottlerin (1 μ M) and Paxilline (100 nM or 1 μ M) supplied as an additive to cardioplegia. **A)** Developed Pressure, **B)** +dP/dt, **C)** –dP/dt, **D)** Tau, and **E)** LVEDP **F)** Heart rate and **G)** Coronary Flow. X-axis time : Baseline – pre CP

function, CP – Cardioplegia, 5 - 30 – min reperfusion. n = minimum of 6 per group, except Rottlerin + 1 uM Pax, n=4. One Way ANOVA, Student Newman-Keuls.

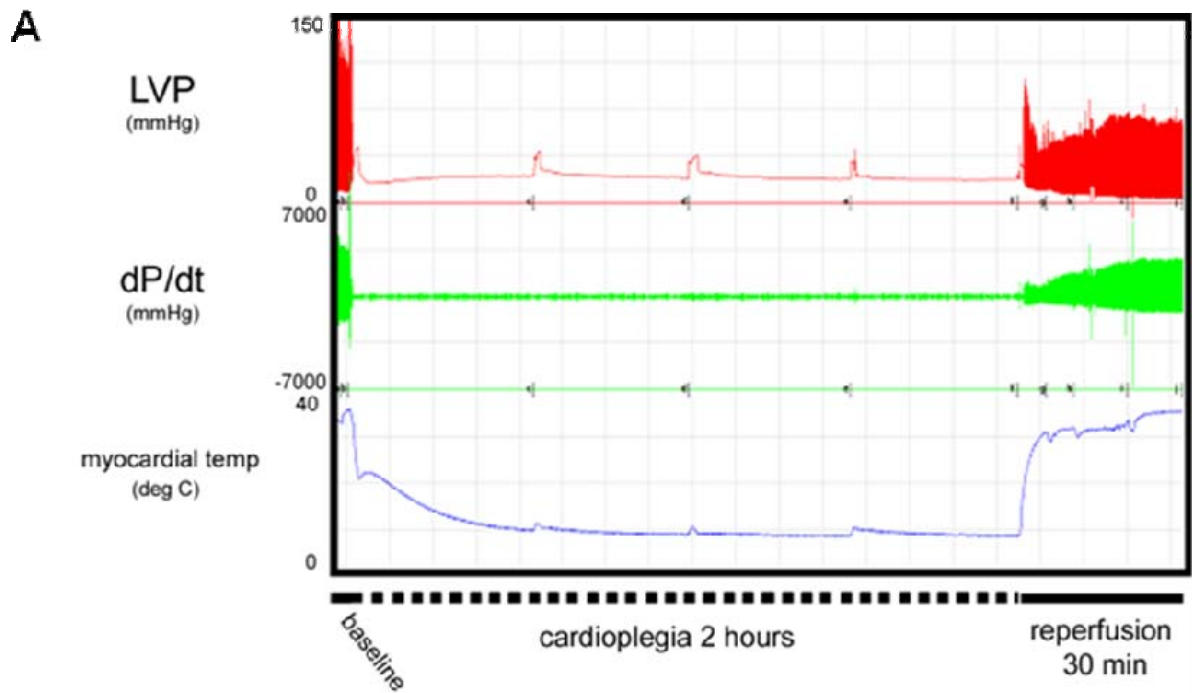
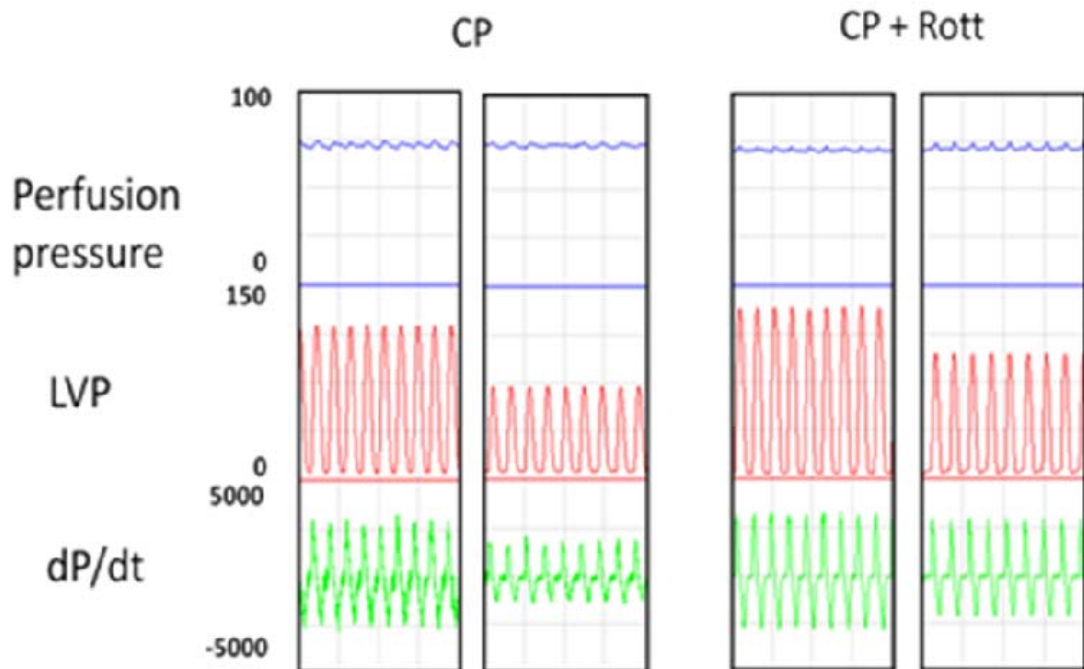
Supplemental Figure 4– Rottlerin does not significantly alter protein or lipid oxidation. A) Representative oxyblot and graph of normalized fold increase over sham in protein carbonyl content measured by oxyblot. B) Graph of lipid oxidation measured by tissue MDA content. Graphs minimum n=6 / group. One Way ANOVA,.

Supplemental Figure 5– Rottlerin does not significantly alter phospholamban or troponin I phosphorylation. Graph displays normalized fold increase in phosphorylation over sham. Minimum n=6 / group. One Way ANOVA.

Reference List

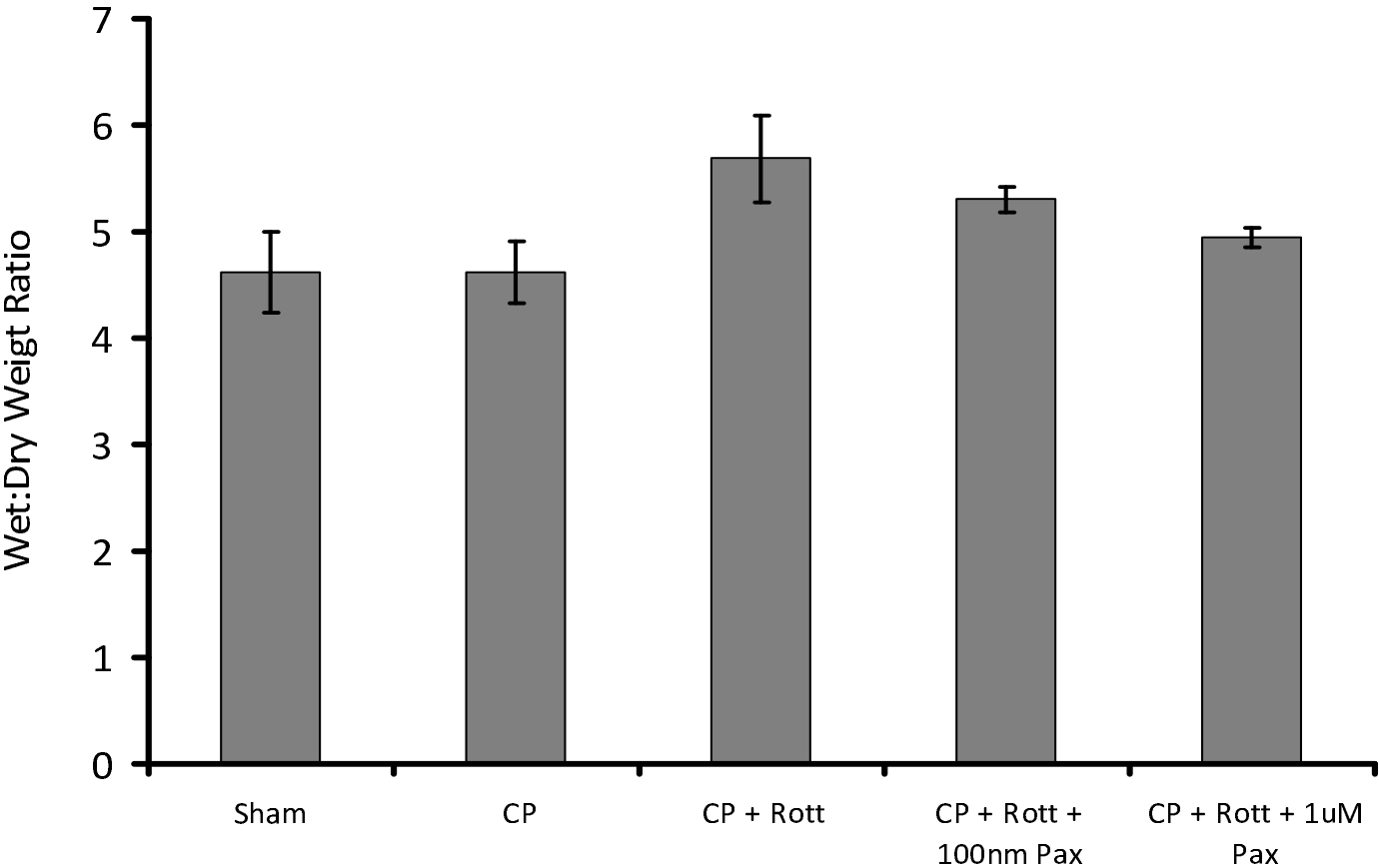
1. Sodha, N. R., Boodhwani, M., Ramlawi, B., Clements, R. T., Mieno, S., Feng, J., Xu, S. H., Bianchi, C., and Sellke, F. W. Atorvastatin increases myocardial indices of oxidative stress in a porcine model of hypercholesterolemia and chronic ischemia. *J. Card Surg.* 2008; 23:312-320.

Supplemental Figure 1

**B**

Supplemental Figure 2

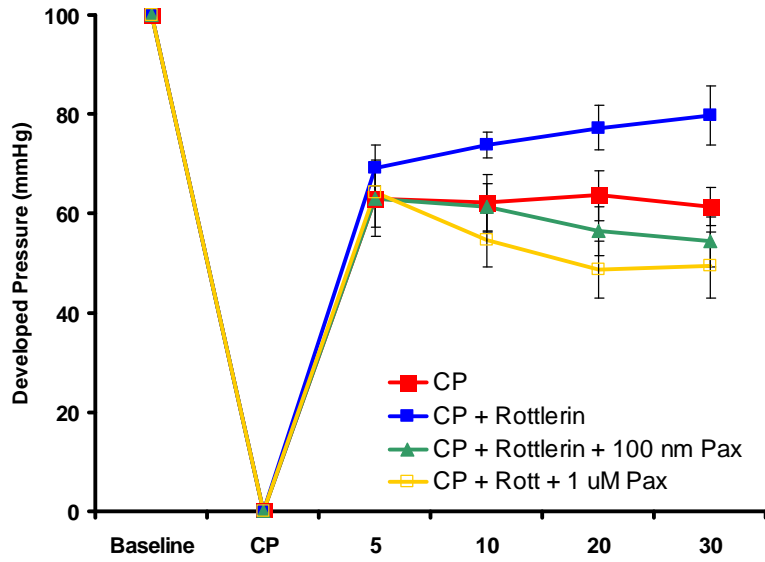
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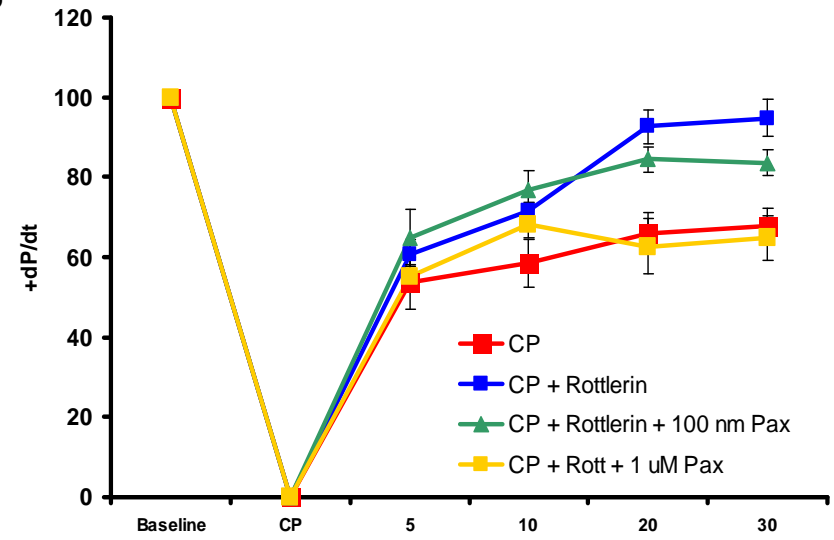
Supplemental figure 3

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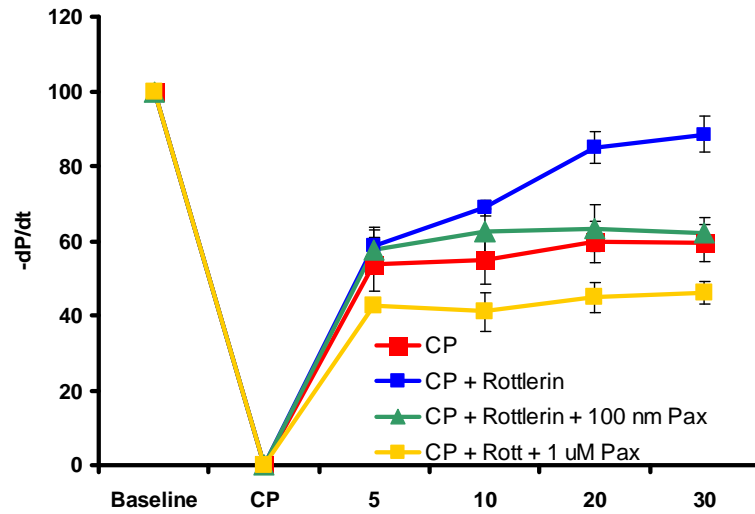
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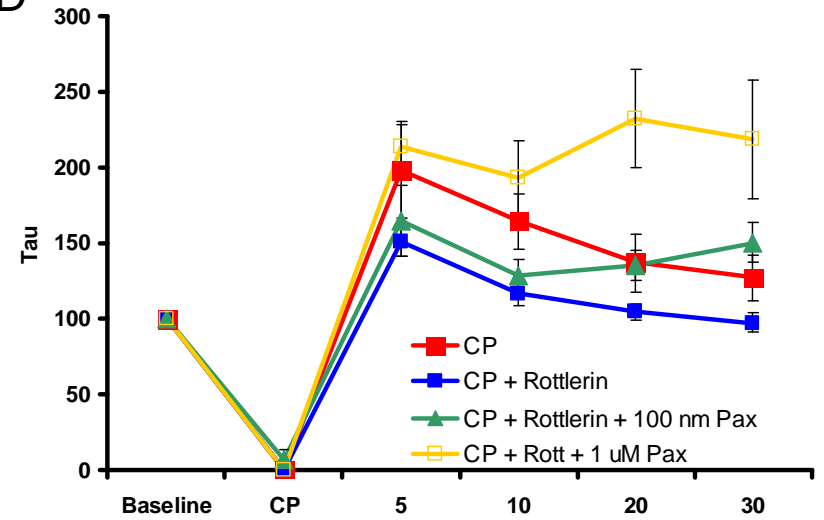
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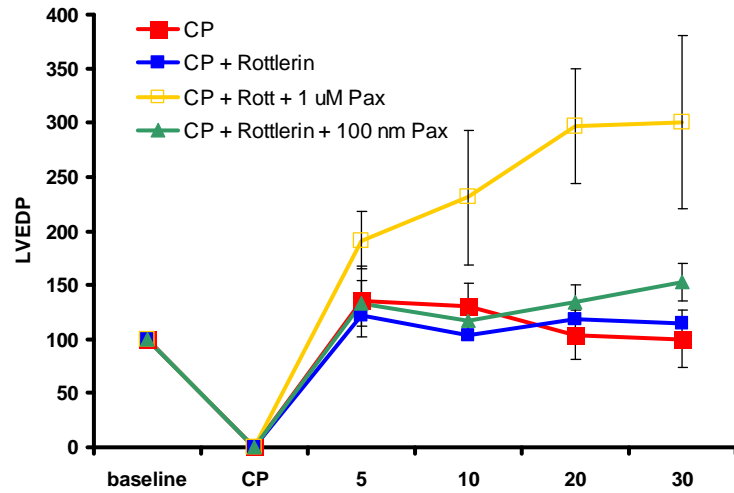


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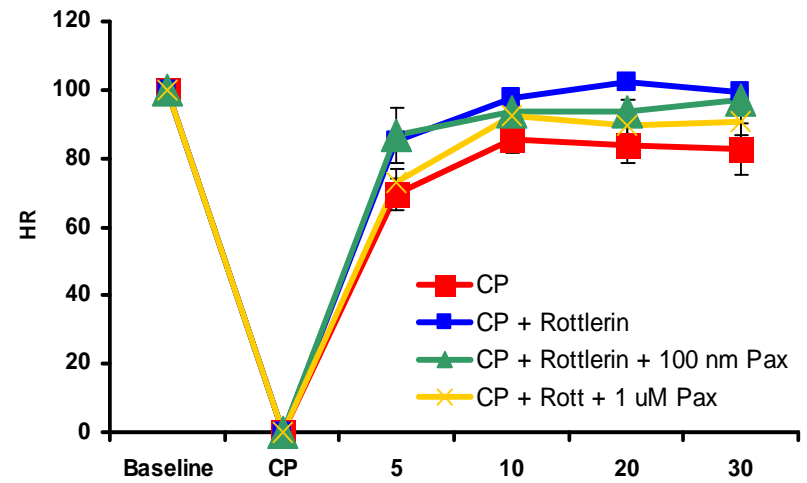


Supplemental figure 3

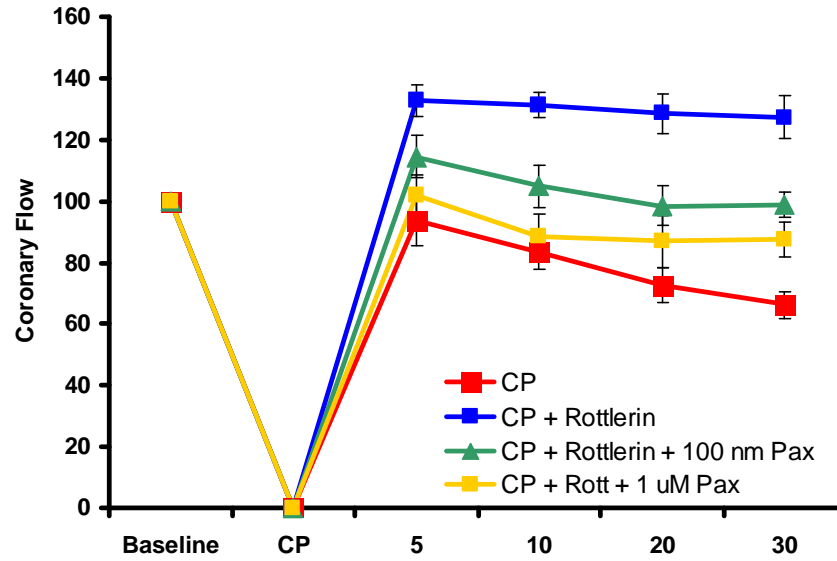
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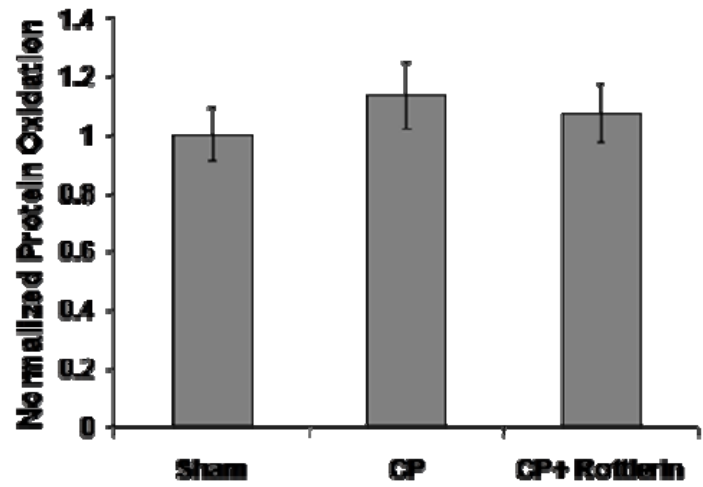
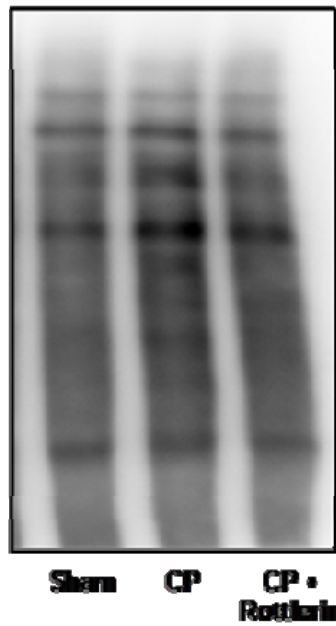


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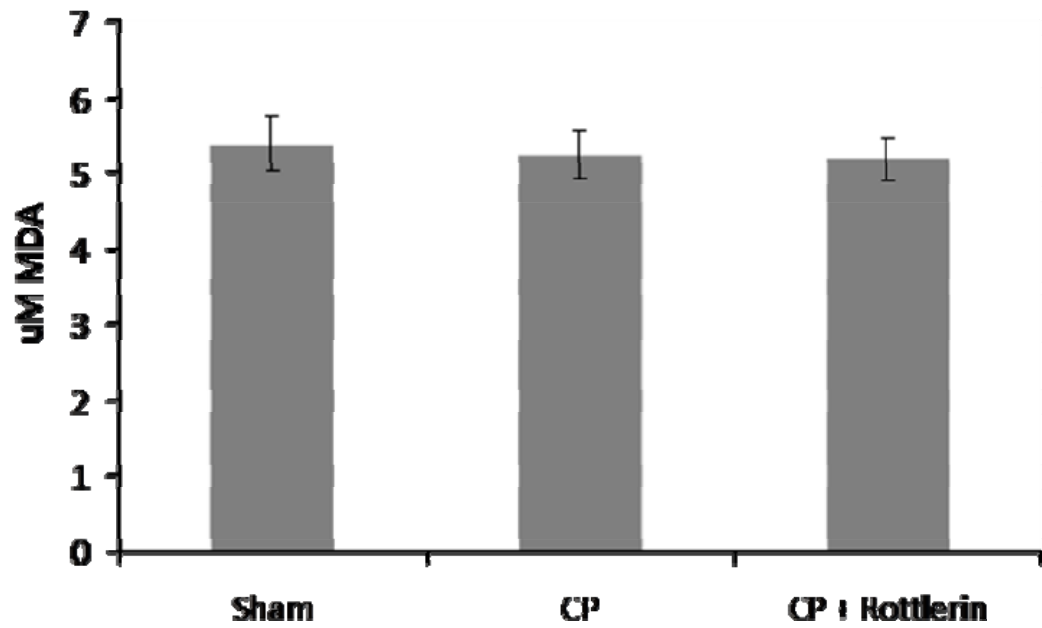


Supplemental figure 4

A



B



Supplemental figure 5

