Supplementary Figure 1: Experimental protocol for the isolated Langendorff perfused rat heart and the *in vivo* model of ischaemia reperfusion (n=8).

Protocol (1): presents the control pre-treatment study, which consisted of 30 minutes (min) stabilisation followed by 30 min global ischaemia and 120 min reperfusion. For the treatment groups, hearts were perfused with Tyrode's+treatment agent for 10 min prior to 30 min global ischaemia followed by 120 min reperfusion.

Protocol (2): presents the post-treatment study group, hearts were perfused with Tyrode's+treatment for 30 min into the start of reperfusion after which the hearts were perfused with Tyrode's only.

Protocol (3): presents the *in vivo* rat model of regional ischaemia and reperfusion; the pretreatment was with a bolus intravenous (i.v.) injection (*e.g.* of orexin B 10 nmol) 10 min prior to 30 min regional ischaemia and 120 min reperfusion.

Supplementary Figure 2: A: Rat testes (positive control), B and C: Different sections of rat heart stained positive for OR-A, D: Rat Heart; a region that is not positive for OR-A; demonstrating antibody specificity. Magnification x40

Protocol 1

(pre-treatment protocol in situ)



