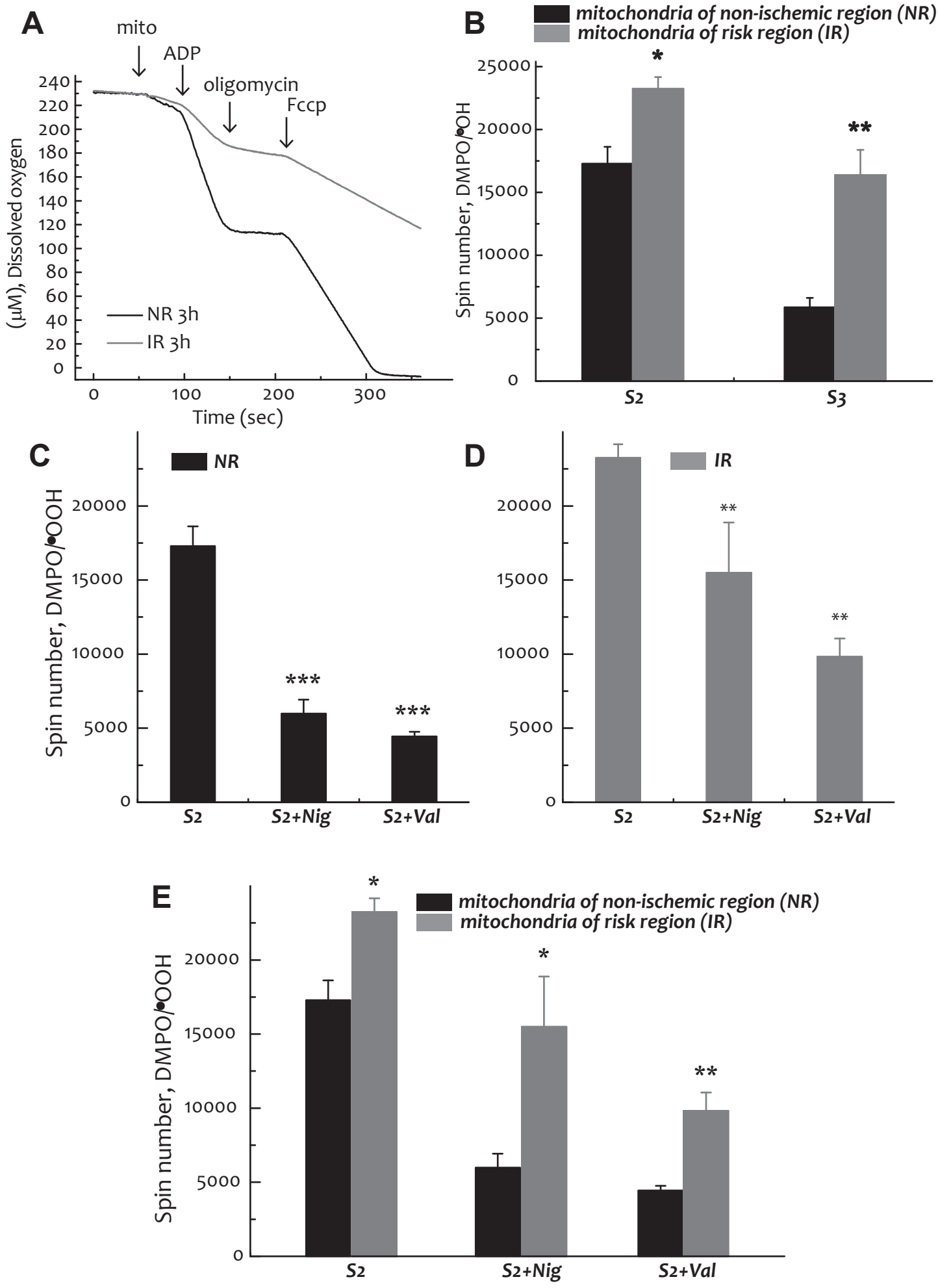
Legends of Supplementary Figures

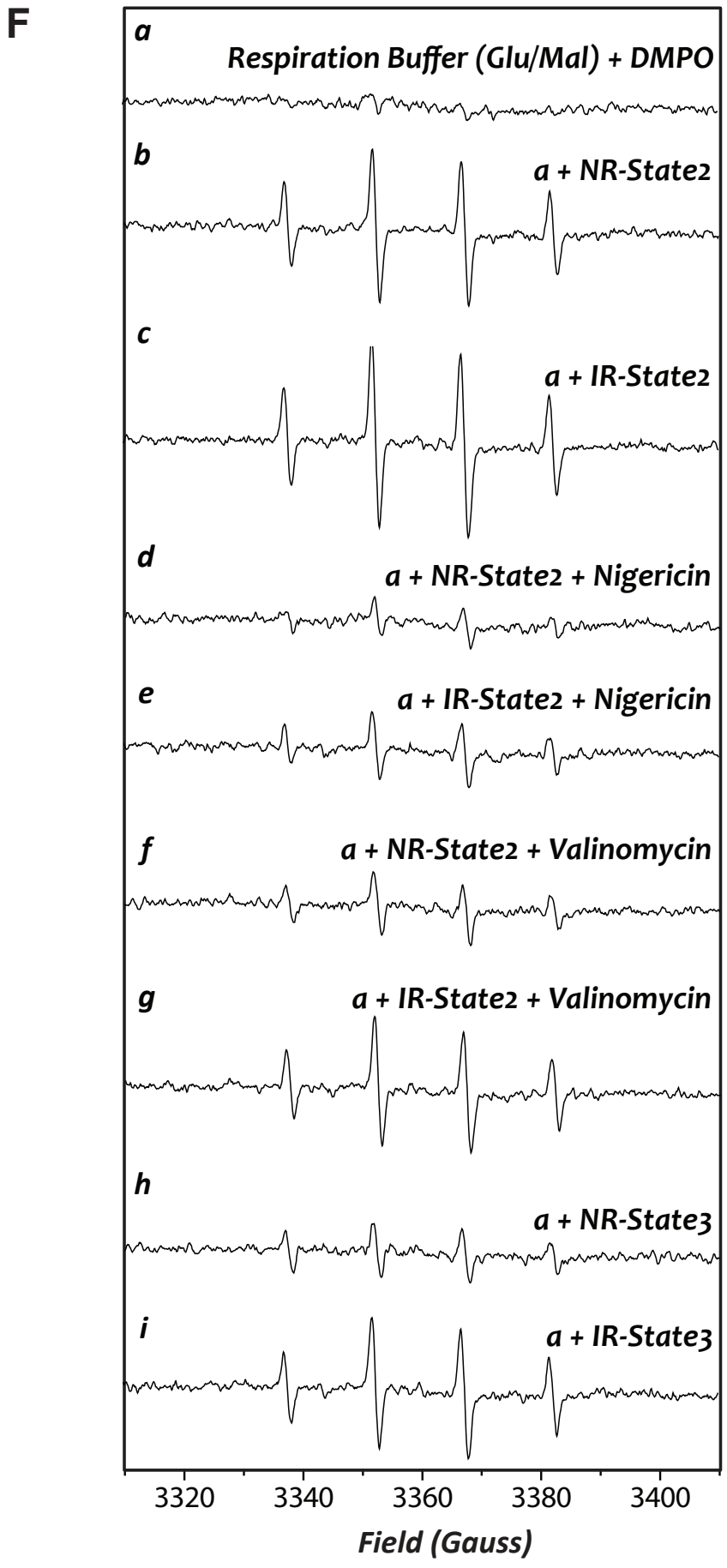
Supplementary Figure 1. Effects of nigericin and valinomycin on the NADH-linked $^{\bullet}O_2^-$ generation mediated by the mitochondria isolated from the non-ischemic region (NR) and the risk region (I/R) of 3-h post-ischemic rat heart. ***A.*** Measurement of OCR by oxygen polarography as described in the legend of Figure 1. ***B.*** NADH-linked $^{\bullet}O_2^-$ generation mediated by as-isolated mitochondria in the presence of glutamate and malate (NADH-linked) was assessed by EPR spin trapping with DMPO under state 2 (S2) and state 3 (S3) respiratory conditions as described in the legend of Figure 5 (n=4, *p < 0.05 *and* **p < 0.01). ***C-E.*** Effect of nigericin treatment (+Nig.) and valinomycin treatment (+Val.) on the NADH-linked $^{\bullet}O_2^-$ generation by mitochondria (n=4, ***p < 0.001). ***F****, Representing EPR spectra.*

Supplementary Figure 2. Impairment of glutathione reductase (GR) in isolated mitochondria from the post-ischemic myocardium. ***A and C,*** The enzymatic activities of GR in the mitochondria and the tissue homogenates of the myocardium were assayed as described under "Experimental Procedure". Rats were subjected to a 30 min coronary ligation followed by 24 h of reperfusion. Mitochondria and tissue homogenates were prepared from the myocardium of a non-ischemic region (NR) and an area of risk region (I/R) respectively. ***C,*** Protein expression of GR in the mitochondria of the post-ischemic myocardium was assessed by Western blot using anti-GR polyclonal Ab. The protein expression level of subunit I (Cox I) of Complex IV in the mitochondria was used as a loading control. The density ratio of the blotting signals between anti-GR and anti-CoX I in *C* was quantitated by the software of Image J. *p<0.05, **p<0.01.

Supplementary Figure 1



Supplementary Figure 1



Supplementary Figure 2