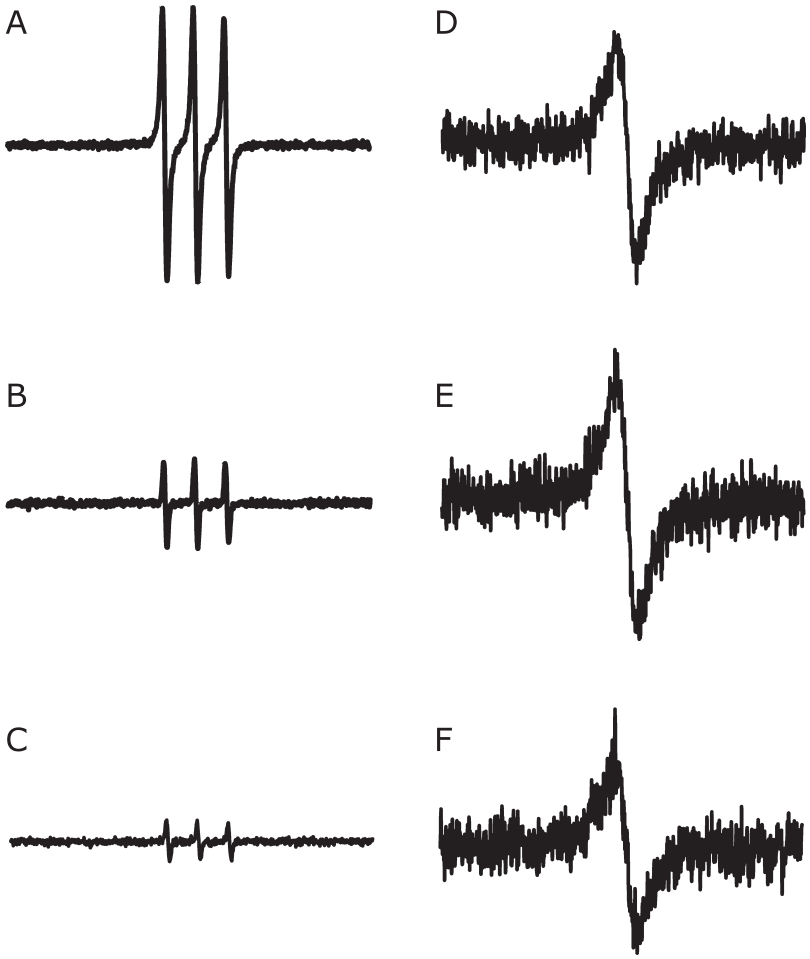

Supplemental Fig. 3. ESR spectra of (A–C) LMW-TEMPOL and (D–F) RNP^O in rat whole blood at 0, 3 and 6 h after LMW-TEMPOL or RNP^O solution in saline was added to rat whole blood, respectively. The ESR signal of LMW-TEMPOL shows a sharp triplet signals due to an interaction between ^{14}N nuclei and the unpaired electron in the dilute solution. In contrast, since RNP^O confines nitroxide radicals in the hydrophobic core, the ESR signal of RNP^O is broad, which is explained by the exchange interaction of the TEMPO radicals. Broad ESR signal of RNP^O was observed after RNP^O was added to rat whole blood, indicating that the confinement of nitroxide radicals in hydrophobic core of RNP^O even in blood (see Fig. 3D–F). On the other hand, the ESR signal of LMW-TEMPOL showed a sharp triplet signals in blood, which decreased in a time-dependent manner (see Fig. 3A–C).