

Supplementary Information

A novel near-infrared probe for imaging of superoxide anions fluctuations and hydrogen ions enhancement in vivo

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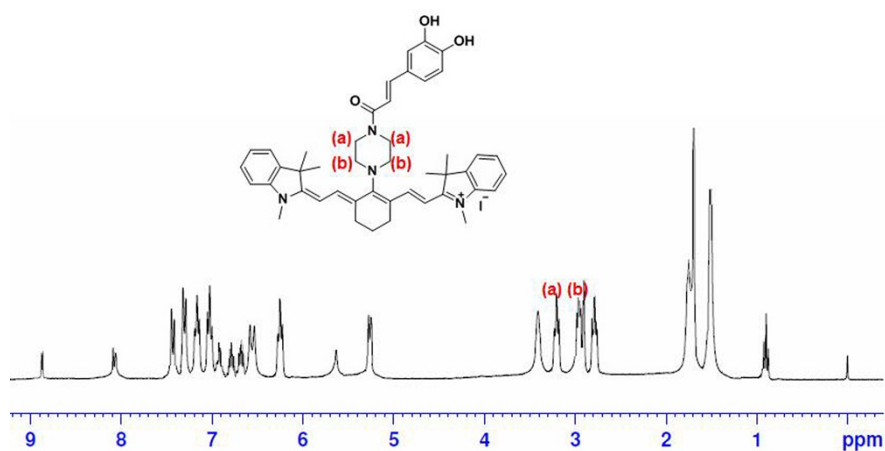
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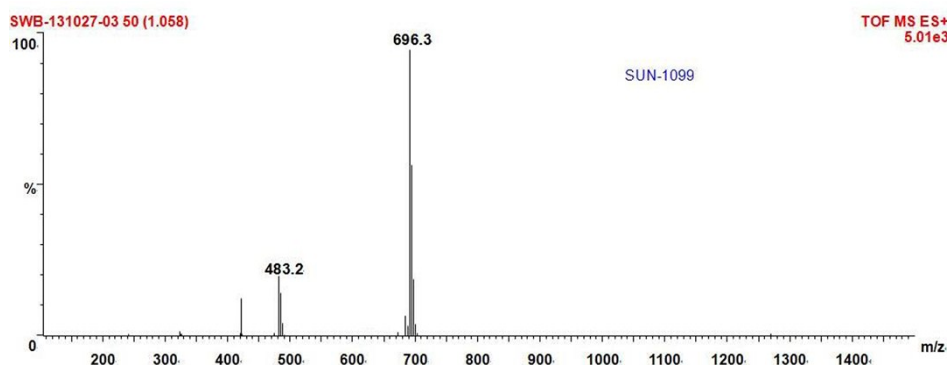
1. Preparation of test solutions

Test solutions of IR-747-SAPH (10 μM) in pH 7.4 phosphate-buffered saline (PBS) (containing 1% DMSO) were prepared. Solutions of various test species were prepared by diluting the stock solution with PBS buffer solution. Different anions were prepared with metal ions forming ZnCl_2 , MgSO_4 , CuCl_2 , CuNO_3 , FeCl_3 , and FeCl_2 . Various ROS, including ClO^- , $\bullet\text{OH}$, $\text{O}_2^{\bullet-}$, $^1\text{O}_2$, $\bullet\text{NO}$, H_2O_2 , and ONOO^- , were prepared according to a previously reported procedure.

2. Design and Synthesis of the probe IR-747-SAPH



A



B

IR-747-SAPH C13-NMR DMSO-d6 300k AV-300

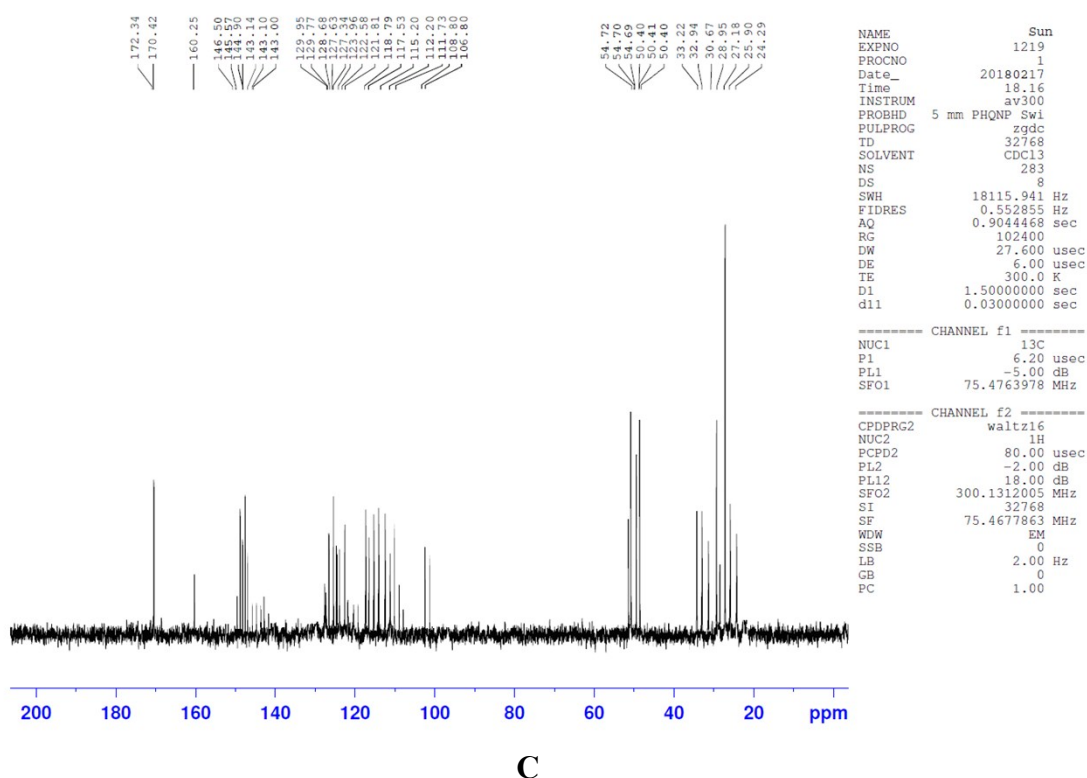


Figure S1. ^1H NMR(A), MS(B) and ^{13}C NMR(C) spectra of IR-747-SAPH in DMSO- d_6