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**A new endoplasmic reticulum-targeted two-photon
fluorescent probe for imaging of superoxide anion in
diabetic mice**

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ABSTRACT

Excessive or unfolded proteins accumulation in endoplasmic reticulum (ER) will cause ER stress, which has evolved to involve in various metabolic diseases. In particular, ER stress plays an important role in the pathogenesis of diabetes. Both ER stress and course of diabetes accompany oxidative stress and production of reactive oxygen species (ROS), among which superoxide anion ($O_2^{\cdot-}$) is the first produced ROS and has been recognized as cell signaling mediator involved in the physiological and pathological process of diabetes. Hence, the development of effective monitoring methods of $O_2^{\cdot-}$ in live cells and in

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