For Research Use Only

NiSPY-3

Table 1. Product information

Code no.	Product	Contents	Storage	Stability
SK3003-01	**NiSPY-3**	1 mg	Freeze-preservation, desiccate and protect from light.	1 year (unopened)

NiSPY-3 (Nitrative Stress Sensing Pyrromethene Dye) is fluorescent reagent for detecting nitrosative stress. **NiSPY-3** reacts with specifically peroxynitrite ($ONOO^-$) when it works as detection reagent for reactive oxygen species.

1. About TokyoGreen®-βGlcU(Na)

- **NiSPY-3** reacts specifically with peroxynitrite ($ONOO^-$) among other reactive oxygen species such as $^{\cdot}OH$, $O^{-\cdot}_2$, H_2O_2, $^1O_2$, NO etc. Fluorescent intensity is not increased by the existence of hydroxyl radical, singlet oxygen, hydrogen peroxide, hypochlorite, nitric oxide or superoxide.
- Live cell fluorescent imaging is available with **NiSPY-3**.

2. Principle of the measurement

NiSPY-3 does not have fluorescence in neutral solution. When **NiSPY-3** reacts with peroxynitrite, it becomes to have strong fluorescence (excitation: 490 nm, emission: 515 nm).

3. Contents

NiSPY-3 1mg

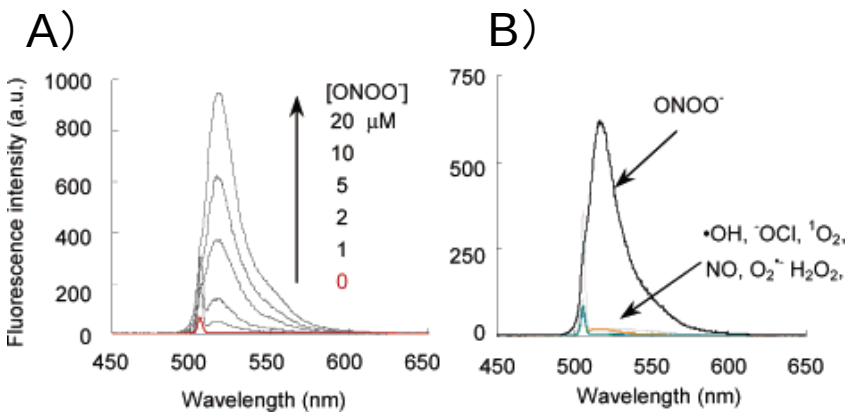
$C_{23}H_{19}BF_2N_4O_4$ Mw:464.23

4. Preparation of Reagent

Dissolve all the reagent in 430 μL of DMSO (5mmol/L), and then dilute 500-5000 times with neutral buffer (final concentration: 1-10 μM) before use. We recommend to use up at once after probes are diluted.

5. Reference

1. T. Ueno, Y. Urano, H. Kojima and T. Nagano: *J. Am. Chem. Soc.*, 128, 10640-10641 (2006) .



A)Fluorescence spectra of NiSPY-3 solution (10 μM NiSPY-3 in 0.1 M phosphate buffer pH 7.4 containing 0.1% DMF as a cosolvent) upon addition of peroxynitrite (final 0, 1, 2, 5,10, 20 μM).

B)Fluorescence response of NiSPY-3 in various ROS generation systems.

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