DPBF

Cat: ID4350

Storage: Powder: 2-8℃, 2 years;Insolvent (mother liquid): -20℃, 6 months; -80℃, 1 year（protect from light）

Introduction

DPBF（1,3-Diphenylisobenzofuran) is a singlet oxygen indicating fluorescent probe with high specificity for singlet oxygen (O2), which can form internal peroxides and decompose into 1,2-dibenzoylbenzene. DPBF can be used to detect the generation of reactive oxygen species (ROS). Once combined with singlet oxygen (1O2), DPBF is irreversibly oxidized, and the absorption intensity at UV visible light (410nm) rapidly decreases.

Parameters

CAS: 5471-63-6

Molecular Formula: $C_{20}H_{14}O$

Molecular Weight: 270.33

Appearance: Light yellow to green yellow Solid

Solubility: Soluble in DMSO ≥10mg/mL(Need ultrasonic)

Protocols *(only for reference)*

Preparation of storage solution

Prepare 10 mM of DPBF in DMSO. e.g., 10 mg of DPBF powder was dissolved in 3.7 mL of DMSO.

Note:

a. Unused storage solution is recommended to be stored in portions at -20℃ to avoid repeated freezing and thawing.

b. Moisture-absorbing DMSO has a significant effect on the solubility of the product, use freshly opened DMSO.

Preparation of working fluid

Dilute the reservoir solution with a suitable buffer (e.g. serum-free medium or PBS, etc.) to make a 10-20 μM DPBF working solution.

Note:

a. The final concentration of the working solution is recommended to be optimized according to different cell lines and experimental systems.

b. If it is found difficult to dissolve, it can be sonicated to promote dissolution.

c. Please adjust the concentration of the working solution according to the actual situation, and use immediately after dissolution.

Note

1. All fluorescent dyes have quenching problems, please try to avoid light to slow down the

fluorescence quenching.

2. For your safety and health, please wear lab coat and disposable gloves.

3. This product is for scientific research use only. Do not use in medicine, clinical diagnosis or treatment, food and cosmetics. Do not store in ordinary residential areas.