

**Product Name:** Peroxy Orange 1

**Catalog No.:** 4944

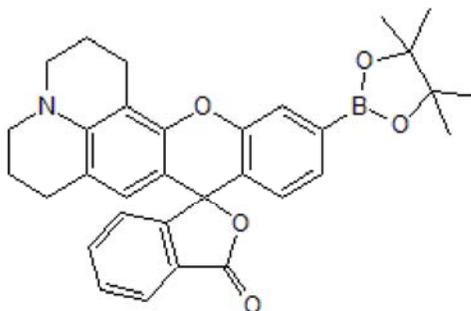
**Batch No.:** 2

CAS Number: 1199576-10-7

IUPAC Name: 2',3',6',7'-Tetrahydro-12'-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)-spiro[isobenzofuran-1(3*H*),9'-[1*H*,5*H*,9*H*]xantheno[2,3,4-*ij*]quinolizin]-3-one

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>32</sub>H<sub>32</sub>BNO<sub>5</sub>  
**Batch Molecular Weight:** 521.41  
**Physical Appearance:** Pink solid  
**Solubility:** DMSO to 10 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 99.2% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	73.71	6.19	2.69
Found	73.39	6.19	2.82

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

Fluorescent probe for imaging hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>); cell permeable. Displays an orange intracellular fluorescence in response to H<sub>2</sub>O<sub>2</sub> signals produced in RAW 264.7 macrophages and A431 cells during immune response and growth factor stimulation, respectively. Excitation wavelength 543 nm, emission between 545 and 750 nm.

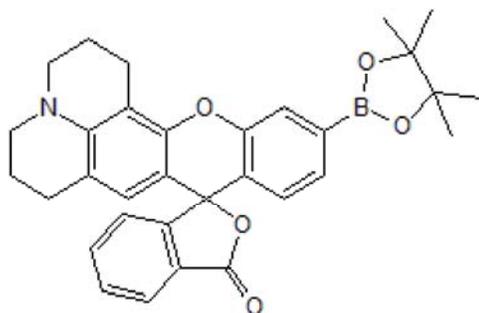
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Physical Appearance: Pink solid

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**Storage:** Store at -20°C. This product is packaged under an inert atmosphere.

**CAUTION** - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

DMSO to 10 mM

This product may be used for research purposes only. It is not licensed for resale and may only be used by the buyer. This product may not be used and is not licensed for clinical assays, where the results of such assays are provided as a diagnostic service. If a diagnostic or therapeutic use is anticipated, then a license must be requested from the University of California. The availability of such diagnostic and therapeutic use license(s) cannot be guaranteed from the University of California.

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**Licensing Information:**

Sold under license from the Regents of the University of California

**References:**

**Woolley *et al*** (2012) H<sub>2</sub>O<sub>2</sub> production downstream of FLT3 is mediated by p22phox in the endoplasmic reticulum and is required for STAT5 signalling. *PLoS ONE* **7**. PMID: 22807997.

**Dickinson *et al*** (2011) Chemistry and biology of reactive oxygen species in signaling or stress responses. *Nat.Chem.Biol.* **7** 504. PMID: 21769097.

**Dickinson *et al*** (2010) A palette of fluorescent probes with varying emission colors for imaging hydrogen peroxide signaling in living cells. *J.Am.Chem.Soc.* **132** 5906. PMID: 20361787.

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