

# Certificate of Analysis

**www.tocris.com**

**Product Name:** FerroOrange

**Catalog No.:** 8846

**Batch No.:** 1

CAS Number: 2711762-70-6

IUPAC Name: 4-(*tert*-Butoxycarbonyl)-1-(3'-(4-(*tert*-butoxycarbonyl)piperazin-1-yl)-3-oxo-3*H*-spiro[isobenzofuran-1,9'-xanthen]-6'-yl)piperazine 1-oxide

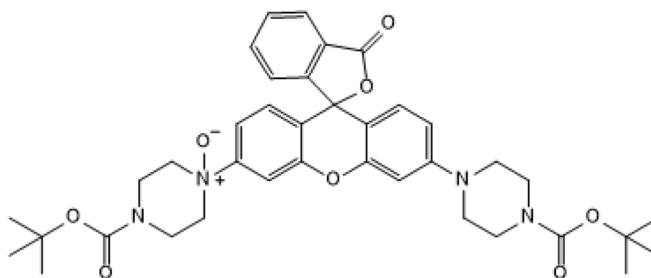
## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>38</sub>H<sub>44</sub>N<sub>4</sub>O<sub>8</sub>

**Batch Molecular Weight:** 684.78

**Storage:** Store at +4°C

**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 98.0% purity

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

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**Description:**

Key information: FerroOrange (RhoNox-4) is a highly sensitive and robust fluorogenic probe for the detection of intracellular labile Fe(II). FerroOrange displays weak absorption and low fluorescence in the visible region, but becomes strongly fluorescent upon reaction with Fe(II). Used for: detection of intracellular labile Fe(II). Application: high-throughput assays for high content imaging of subcellular labile Fe(II) in live cells; fluorescent microscopy; studies on iron homeostasis and ferroptosis. Properties and Photophysical Data: FerroOrange has excellent cell-membrane permeability and low cell toxicity. FerroOrange has no chelating... Please see product specific page on www.tocris.com for full description.

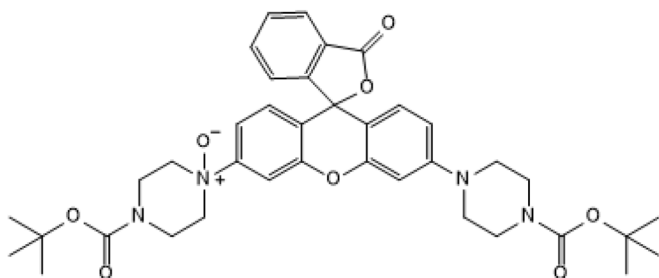
**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>38</sub>H<sub>44</sub>N<sub>4</sub>O<sub>8</sub>

Batch Molecular Weight: 684.78

**Minimum Purity:** ≥90%

**Batch Molecular Structure:**



**References:**

Hirayama *et al* (2020) High-throughput screening for the discovery of iron homeostasis modulators using an extremely sensitive fluorescent probe. *Sensors* **5** 2950. PMID: 32885952.

**Storage:** Store at +4°C

**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:**

The small unit size and physical nature of this product (transparent film) mean that the vial may appear empty. Please be assured that a comprehensive and rigorous release protocol is in place to confirm the presence and integrity of the material.

**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. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**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.

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