

Product Name: Acridine Orange hydrochloride

Catalog No.: 5092

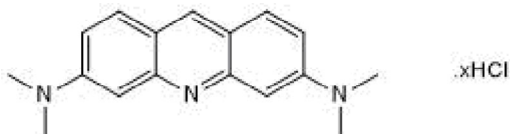
Batch No.: 7

IUPAC Name: *N,N,N',N'*-Tetramethyl-3,6-acridinediamine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₁₇ H ₁₉ N ₃ .HCl.
Physical Appearance:	Red solid
Solubility:	water to 10 mg/ml
Storage:	Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC:	Shows 99.2% purity at 271 nm
¹ H NMR:	Consistent with structure
Mass Spectrum:	Consistent with structure
UV Spectrum:	Consistent with structure
λ _{max} :	490 nm (Water)
Net Dye Content:	82%

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

Product Name: Acridine Orange hydrochloride

Catalog No.: 5092

7

IUPAC Name: *N,N,N',N'*-Tetramethyl-3,6-acridinediamine hydrochloride

Description:

Key information: Acridine Orange hydrochloride is a nucleic acid binding dye. Cell and organelle permeable. Used for: cell cycle and apoptosis determination, for visual detection of nucleic acids on agarose and polyacrylamide gels, for autophagy analyze. Application: suitable for flow cytometry and fluorescence microscopy. Properties and Photophysical Data: emits green fluorescence when incorporated into double-stranded DNA, red fluorescence when bound electrostatically to phosphate groups of RNA or single-stranded DNA, and orange fluorescence in acidic conditions. Excitation and emission maxima (λ) are 502 nm and 525 nm, respectively... Please see product specific page on www.tocris.com for full description.

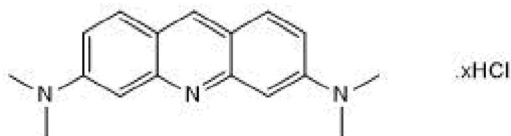
Physical and Chemical Properties:

Batch Molecular Formula: C₁₇H₁₉N₃.HCl.

Physical Appearance: Red solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at RT

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:

water to 10 mg/ml

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.

Other Information:

Molecular Weight: 265.36 g/mol (free Base)

References:

Sato et al (2018) Flow cytometric analysis of *Xenopus laevis* and *X. tropicalis* blood cells using acridine orange. *Sci.Rep.* **8** 16245. PMID: 30390005.

Kiyoshima et al (2013) Chemoresistance to concanamycin A1 in human oral squamous cell carcinoma is attenuated by an HDAC inhibitor partly via suppression of Bcl-2 expression. *PLoS ONE* **8** 80998. PMID: 24278362.

Ratan et al (2008) Rapid communication: oxidative stress induces apoptosis in embryonic cortical neurons. *J.Neurobiol.* **62** 376. PMID: 7903353.

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

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel:+1 612 379 2956