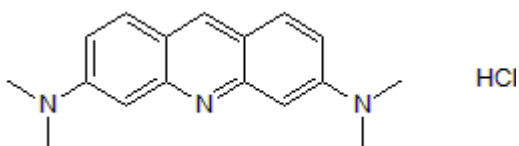


Product Name: Acridine Orange hydrochloride
CAS Number: 65-61-2
IUPAC Name: *N,N,N',N'*-Tetramethyl-3,6-acridinediamine hydrochloride

Catalog No.: 5092 **Batch No.:** 1
EC Number: 200-614-0

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₁₉N₃·HCl·3.75H₂O
Batch Molecular Weight: 369.37
Physical Appearance: Dark orange solid
Solubility: water to 100 mM
 DMSO to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.8% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	55.28		11.38
Found	55.25		11.27

Absorption: λ_{max} = 494nm
Zinc content: 1ppm

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

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EC Number: 200-614-0

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

Description:

Cell and organelle membrane permeable nucleic acid binding dye. Emits green fluorescence when bound to double stranded DNA and red fluorescence when bound to RNA or single stranded DNA. Used in cell cycle and apoptosis studies and as a lysosomal dye.

Physical and Chemical Properties:

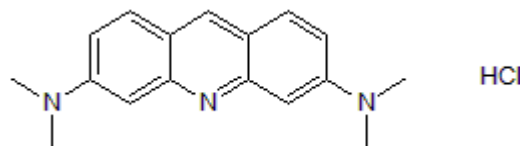
Batch Molecular Formula: C₁₇H₁₉N₃.HCl.3.75H₂O

Batch Molecular Weight: 369.37

Physical Appearance: Dark orange solid

Minimum Purity: >99%

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 100 mM

DMSO to 100 mM

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.

References:

McMaster et al (1977) Analysis of single and double stranded nucleic acids on polyacrylamide and agarose gels by using glyoxal and acridine orange. *Proc.Natl.Acad.Sci.USA* **74** (11) 4835. PMID: 73185.

Ratan et al (2008) Rapid communication: oxidative stress induces apoptosis in embryonic cortical neurons. *J.Neurobiol.* **62** (1) 376. PMID: 7903353.

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** (11) 80998. PMID: 24278362.

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