

Certificate of Analysis

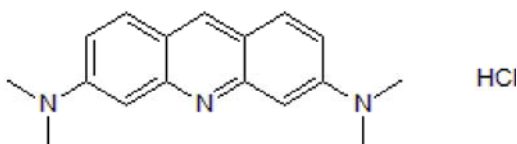
www.tocris.com

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.:** 2
EC Number: 200-614-0

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₁₉N₃.HCl.2¼H₂O
Batch Molecular Weight: 342.34
Physical Appearance: Red solid
Solubility: water to 100 mM
DMSO to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.5% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	59.64		12.27
Found	59.41		12.24

Absorption: λ_{max} = 494nm
Zinc content: 7ppm

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

Product Name: Acridine Orange hydrochloride

Catalog No.: 5092

Batch No.: 2

CAS Number: 65-61-2

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:

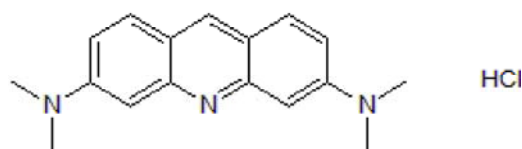
Batch Molecular Formula: C₁₇H₁₉N₃.HCl.2½H₂O

Batch Molecular Weight: 342.34

Physical Appearance: Red 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:

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.

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** 4835. PMID: 73185.

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