# Product Information



**Product Name:** **Acridine Orange hydrochloride** **Catalog No.: 5092** **Batch No.: 1**

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:**

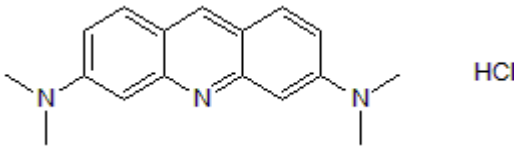
Batch Molecular Formula: $C_{17}H_{19}N_3.HCl.3.75H_2O$

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:**

**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.



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