TOCRIS bioscience

Print Date: Apr 28th 2015

Certificate of Analysis

www.tocris.com

Product Name: **MIRA-1** **Catalog No.: 3362** **Batch No.: 1**

CAS Number: 72835-26-8

IUPAC Name: 1-[(1-Oxopropoxy)methyl]-1*H*-pyrrole-2,5-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_8H_9NO_4$

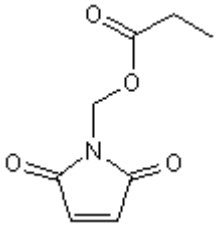
Batch Molecular Weight: 183.16

Physical Appearance: White solid

Solubility: DMSO to 100 mM
ethanol to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.6 (Ethyl acetate:Hexane [1:1])

Melting Point: Between 45 - 47°C

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	52.46	4.95	7.64
Found	52.11	4.91	7.56

Product Name: **MIRA-1** **Catalog No.: 3362** **Batch No.: 1**

CAS Number: 72835-26-8

IUPAC Name: 1-[(1-Oxopropoxy)methyl]-1*H*-pyrrole-2,5-dione

Description:

Restores wild-type conformation, function and DNA binding activity to mutant p53. Induces p53 transcriptional transactivation of p21, MDM2 and PUMA, and promotes tumor cell death by apoptosis in a mutant p53-dependent manner in vitro (IC_{50} = 10µM).

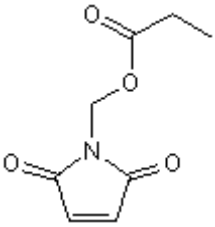
Physical and Chemical Properties:

Batch Molecular Formula: $C_8H_9NO_4$

Batch Molecular Weight: 183.16

Physical Appearance: White solid

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM
ethanol 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:

Bykov *et al* (2005) Reactivation of mutant p53 and induction of apoptosis in human tumor cells by maleimide analogs. J.Biol.Chem. ***280*** 30384. PMID: 15998635.

Wiman (2006) Strategies for therapeutic targeting of the p53 pathway in cancer. Cell Death Differ. ***13*** 921. PMID: 16557267.

Kumar *et al* (2007) p53 in breast cancer: mutation and countermeasures. Front.Biosci. ***12*** 4168. PMID: 17485365.