Certificate of Analysis

Product Name: **iHAP1** **Catalog No.: 7303** **Batch No.: 1**

CAS Number: 105925-39-1

IUPAC Name: (2-Chloro-10*H*-phenothiazin-10-yl)(4-methoxyphenyl)methanone

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{20}H_{14}ClNO_2S$

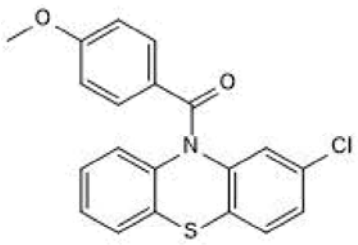
Batch Molecular Weight: 367.85

Physical Appearance: Beige solid

Solubility: DMSO to 50 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.5% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	65.3	3.84	3.81
Found	65.12	3.87	3.79

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Product Information

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CAS Number: 105925-39-1

IUPAC Name: (2-Chloro-10*H*-phenothiazin-10-yl)(4-methoxyphenyl)methanone

Description:

Allosteric activator of protein phosphatase 2A (PP2A) (EC_{50} ~ 0.12 µM); activates PP2A-B56ε subunit. Inhibits proliferation of lymphoblastic leukemia (T-ALL) cell lines including KOPT-Ki, SUPT-13 and RPMI-8402 (IC_{50} values are 0.3 - 0.8 µM). Inhibits tubulin polymerization in vitro (IC_{50} = 0.87 µM). Blocks cell cycle causing prometaphase arrest in vitro. Inhibits T-ALL tumor growth in a transgenic zebrafish model and a mouse T-ALL xenograft model.

Physical and Chemical Properties:

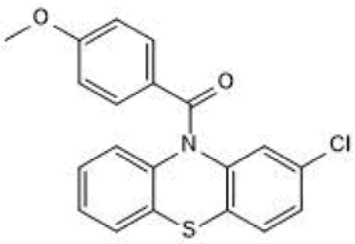
Batch Molecular Formula: $C_{20}H_{14}ClNO_2S$

Batch Molecular Weight: 367.85

Physical Appearance: Beige solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 50 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:

Morita *et al* (2020) Allosteric activators of protein phosphatase 2A display broad antitumor activity mediated by dephosphorylation of MYBL2. Cell. ***181*** 702. PMID: 32315619.

Mori *et al* (2013) Protein phosphatase 2A as a potential target for treatment of adult T cell leukemia. Curr.Cancer Drug Targets. ***13*** 829. PMID: 24015987.

Prinz *et al* (2011) *N*-benzoylated phenoxazines and phenothiazines: synthesis, antiproliferative activity, and inhibition of tubulin polymerization. J.Med.Chem. ***54*** 4247. PMID: 21563750.

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