

Certificate of Analysis

Print Date: Sep 17th 2020

www.tocris.com

Product Name: PD 98059 Catalog No.: 1213 Batch No.: 9

CAS Number: 167869-21-8

IUPAC Name: 2-(2-Amino-3-methoxyphenyl)-4*H*-1-benzopyran-4-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{16}H_{13}NO_3$ Batch Molecular Weight:267.28Physical Appearance:Yellow solidSolubility:DMSO to 25 mM

ethanol to 5 mM

Storage: Store at RT

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 98% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

Carbon Hydrogen Nitrogen

Theoretical 71.9 4.9 5.24 Found 71.51 4.9 5.34

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

www.tocris.com/distributors Tel:+1 612 379 2956



Product Information

Print Date: Sep 17th 2020

www.tocris.com

Product Name: PD 98059 Catalog No.: 1213 Batch No.: 9

CAS Number: 167869-21-8

IUPAC Name: 2-(2-Amino-3-methoxyphenyl)-4*H*-1-benzopyran-4-one

Description:

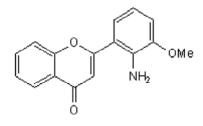
Inhibitor of mitogen-activated protein kinase kinase (MKK / MEK). Acts by binding to the inactivated form of MEK, thereby preventing its phosphorylation by cRAF or MEK kinase (IC $_{50}$ = 2-7 μ M). Inhibits cell growth and proliferation in acute myelogenous leukemia (AML) cell lines; causes G $_{1}$ arrest by blocking p53-dependent p21 induction. Enhances embryonic stem cell self-renewal.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₆H₁₃NO₃ Batch Molecular Weight: 267.28 Physical Appearance: Yellow solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 25 mM ethanol to 5 mM

When purched as a 1mg unit, this product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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:

Kojima *et al* (2007) Mitogen-activated protein kinase kinase inhibition enhances nuclear proapoptotic function of p53 in acute myelogenous leukemia cells. *67* 3210. PMID: 17409429.

Qi et al (2004) BMP4 supports self-renewal of embryonic stem cells by inhibiting mitogen-activated protein kinase pathways. Proc.Natl.Acad.Sci.USA **101** 6027. PMID: 15075392.

Tsang et al (1998) Effects of mitogen-activated protein kinase kinase inhibitor PD 98059 on antigen challenge of guinea-pig airways in vitro. Br.J.Pharmacol. **125** 61. PMID: 9776345.

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