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## DATASHEET

PD 98059

### Product overview

Name	PD 98059
Cat No	HB2244
Biological action	Inhibitor
Purity	>98%
Description	Selective MEK1/MAP2K inhibitor. Enhances ESC self-renewal.

### Images



### Biological Data

Biological description	Selective MEK1/MAP2K inhibitor ( $IC_{50}$ values are 2 and 50 $\mu M$ at MEK1 and MEK2 respectively). Binds to inactivated MEK to prevent its phosphorylation by MEK kinase or c-Raf. Inhibits cell growth and proliferation and induces modest apoptosis. Also enhances embryonic stem cell self-renewal. Active <i>in vivo</i> .
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### Solubility & Handling

Storage instructions	Room temperature
Solubility overview	Soluble in DMSO (25mM) and in ethanol (5mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

### Chemical Data

Chemical name	2-(2-Amino-3-methoxyphenyl)-4 <i>H</i> -1-benzopyran-4-one
Molecular Weight	267.28
Chemical structure	
Molecular Formula	$C_{16}H_{13}NO_3$
CAS Number	167869-21-8

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PubChem identifier	4713
SMILES	CC1=CC(=C1N)C2=CC(=O)C3=CC=CC=C3O2
InChi	InChI=1S/C16H13NO3/c1-19-14-8-4-6-11(16(14)17)15-9-12(18)10-5-2-3-7-13(10)20-15/h2-9H,17H 2,1H3
InChiKey	QFWCYNPOPKQOKV-UHFFFAOYSA-N
MDL number	MFCD00671789

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## References

### PD 098059 is a specific inhibitor of the activation of mitogen-activated protein kinase kinase in vitro and in vivo.

Alessi DR *et al* (1995) J Biol Chem 270(46)

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### A synthetic inhibitor of the mitogen-activated protein kinase cascade.

Dudley DT *et al* (1995) Proc Natl Acad Sci U S A 92(17)

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### U0126 and PD98059, specific inhibitors of MEK, accelerate differentiation of RAW264.7 cells into osteoclast-like cells.

Hotokezaka H *et al* (2002) J Biol Chem 277(49)

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### Inhibition of MAP kinase kinase blocks the differentiation of PC-12 cells induced by nerve growth factor.

Pang L *et al* (1995) J Biol Chem 270(23)

PubMedID [7775407](#)

### Pre-LTP requires extracellular signal-regulated kinase in the ACC.

Yamanaka et al (2016) Mol Pain 12

PubMedID [27178245](#)

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