

Product Name: PD 168077 maleate

Catalog No.: 1065

Batch No.: 3

CAS Number: 630117-19-0

IUPAC Name: *N*-[[4-(2-Cyanophenyl)-1-piperazinyl]methyl]-3-methylbenzamide maleate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₀H₂₂N₄O.C₄H₄O₄.1/4H₂O

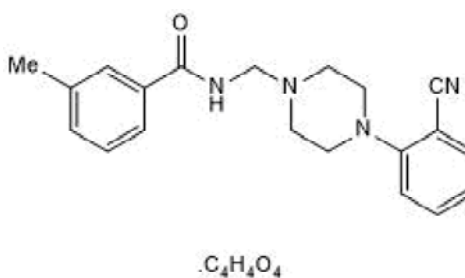
Batch Molecular Weight: 454.99

Physical Appearance: White solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.6% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	63.35	5.87	12.31
Found	63.46	5.61	12.19

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

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CAS Number: 630117-19-0

IUPAC Name: N-[4-(2-Cyanophenyl)-1-piperazinyl]methyl]-3-methylbenzamide maleate

Description:

PD 168077 maleate is a potent D₄ dopamine receptor agonist (K_i = 8.7 nM) with > 400-fold selectivity over D₂ and > 300-fold selectivity versus D₃ subtypes respectively. Induces synaptic translocation of CaMK II to postsynaptic sites in cultured prefrontal cortical neurons. Centrally active in vivo.

Physical and Chemical Properties:

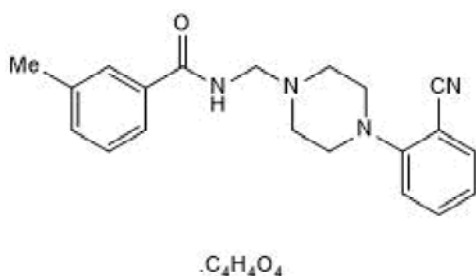
Batch Molecular Formula: C₂₀H₂₂N₄O.C₄H₄O₄.½H₂O

Batch Molecular Weight: 454.99

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

CAUTION - Solutions of this product should be made up and used on the day of preparation

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:

Gu et al (2006) Activation of DA D₄ receptors induces synaptic translocation of Ca²⁺/calmodulin-dependent protein kinase II in cultured prefrontal cortical neurons. *Mol.Pharmacol.* **69** 813. PMID: 16365279.

Clifford and Waddington (2000) Topographically based search for an "Ethogram" among a series of novel D₄ DA receptor agonists and antagonists. *Neuropsychopharmacology* **22** 538. PMID: 10731629.

Glase et al (1997) Substituted [(4-phenylpiperazinyl)methyl]benzamides: selective DA D₄ agonists. *J.Med.Chem.* **40** 1771. PMID: 9191952.

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