

Certificate of Analysis

Print Date: Oct 24th 2019

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Product Name: PD 90780 Catalog No.: 5101 Batch No.: 1

CAS Number: 77422-99-2

IUPAC Name: 7-(Benzoylamino)-4,9-dihydro-4-methyl-9-oxo-pyrazolo[5,1-b]quinazoline-2-carboxylic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{19}H_{14}N_4O_4.H_2O$

Batch Molecular Weight: 380.36

Physical Appearance: Pale yellow solid

Solubility: 1eq. NaOH to 20 mM with sonication

Storage: Store at +4°C

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: R_f = 0.72 (Dichloromethane:Methanol:Ammonia soln. [1:1:0.1])

HPLC: Shows 99% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 60 4.24 14.73 Found 60.2 3.85 14.59

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



Product Information

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Description:

A nonpeptide inhibitor of NGF binding to p75NTR (IC $_{50}$ ~ 1 μ M in CHO cells); binds NGF, not p75NTR. Affinity maybe altered by the presence of TrkA receptors. Neuroprotective.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₉H₁₄N₄O₄.H₂O

Batch Molecular Weight: 380.36

Physical Appearance: Pale yellow solid

Minimum Purity: >98%

Batch Molecular Structure:

Storage: Store at +4°C

Solubility & Usage Info:

1eq. NaOH to 20 mM with sonication

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 $^{\circ}\text{C}$ 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:

Eibl et al (2012) Structural, biological, and pharmacological strategies for the inhibition of nerve growth factor. Neurochem.Int. **61** 1266. PMID: 23103525.

Longo *et al* (2008) Small molecule modulation of p75 neurotrophin receptor functions. CNS Neurol.Disord.Drug Targets **7** 63. PMID: 18289033.

Colquhoun *et al* (2004) Differential activity of the nerve growth factor (NGF) antagonist PD90780 [7-(benzolylamino)-4,9-dihydro-4-methyl-9-oxo-pyrazolo[5,1-b]quinazoline-2-carboxylic acid] suggests altered NGF-p75NTR interactions in the presence of TrkA. J.Pharmacol.Exp.Ther. *310* 505. PMID: 15051797.

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