

Certificate of Analysis

Print Date: Jan 15th 2016

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Product Name: CGP 52411 Catalog No.: 3360 Batch No.: 1

CAS Number: 145915-58-8

IUPAC Name: 5,6-Bis(phenylamino)-1H-isoindole-1,3(2H)-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Solubility: DMSO to 100 mM ethanol to 25 mM

Storage: Store at RT

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: $R_f = 0.18$ (Ethyl acetate:Petroleum ether [2:8])

HPLC: Shows 99.2% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 72.94 4.59 12.76 Found 72.68 4.67 12.7



Product Information

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Description:

Selective inhibitor of the epidermal growth factor receptor (EGFR) (IC $_{50}$ = 0.3 μM in vitro). Also inhibits and reverses the formation of A β 42 fibers associated with Alzheimer's disease. Eliminates calcium influx potential when coincubated with amyloid β -peptide (1-42) (Cat.No. 1428); reduces neurotoxicity by blocking Ca $^{2+}$ influx into neuronal cells.

Physical and Chemical Properties:

Batch Molecular Formula: C₂₀H₁₅N₃O₂ Batch Molecular Weight: 329.35 Physical Appearance: Yellow solid

Minimum Purity: >99%

Batch Molecular Structure:

Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM ethanol to 25 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:

Buchdunger *et al* (1994) 4,5-dianilinophthalimide: a protein tyrosine kinase inhibitor with selectivity for the epidermal growth factor receptor signal transduction pathway and potent *in vivo* antitumor activity. Proc.Natl.Acad.Sci. *91* 2334. PMID: 8134396.

Blanchard *et al* (2004) Efficient reversal of Alzheimer's disease fibril formation and elimination of neurotoxicity by a small molecule. Proc.Natl.Acad.Sci. *101* 14326. PMID: 15388848.

Wang et al (2008) Direct and selective elimination of specific prions and amyloids by 4,5-dianilinophthalimide and analogs. Proc.Natl.Acad.Sci. 105 7159. PMID: 18480256.