Print Date: Mar 10th 2022

Certificate of Analysis

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Product Name: **GW 9662** **Catalog No.: 1508** **Batch No.: 2**

CAS Number: 22978-25-2

IUPAC Name: 2-Chloro-5-nitro-*N*-phenylbenzamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{13}H_9N_2O_3Cl$

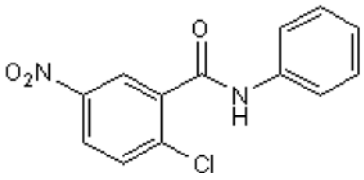
Batch Molecular Weight: 276.68

Physical Appearance: Light yellow crystalline solid

Solubility: ethanol to 25 mM with gentle warming
DMSO to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.3 (Ethyl acetate:Petroleum ether [1:4])

Melting Point: Between 163 - 164°C

HPLC: Shows >99.7% purity

^{1}H NMR: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	56.43	3.28	10.12
Found	56.43	3.28	10.08

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Product Information

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CAS Number: 22978-25-2

IUPAC Name: 2-Chloro-5-nitro-*N*-phenylbenzamide

Description:

GW 9662 is a selective irreversible PPARγ antagonist (IC_{50} values are 3.3, 32 and 2000 nM for PPARγ, PPARα and PPARδ respectively). Blocks the inhibition of osteoclast formation induced by IL-4 in the low micromolar range (1-2 μM), therefore is more potent than BADGE. Anticancer, inhibits growth of human mammary tumor cell lines.

Physical and Chemical Properties:

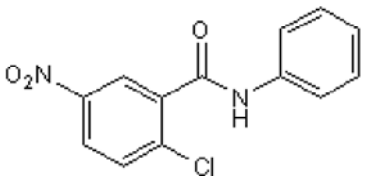
Batch Molecular Formula: $C_{13}H_9N_2O_3Cl$

Batch Molecular Weight: 276.68

Physical Appearance: Light yellow crystalline solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

ethanol to 25 mM with gentle warming
DMSO to 100 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:

Seargent *et al* (2004) GW9662, a potent antaognist of PPARγ, inhibits growth of breast tumour cells and promotes the anticancer effects of the PPARγ agonist rosiglitazone, independently of PPARγ activation. Br.J.Pharmacol. ***143*** 933. PMID: 15533890.

Leesnitzer *et al* (2002) Functional consequences of cysteine modification in the ligand binding sites of peroxisone proliferator activated receptors by GW9662. Biochemistry ***41*** 6640. PMID: 12022867.

Bendixen *et al* (2001) IL-4 inhibits osteoclast formation through a direct action on osteoclast precursors via peroxisome proliferator-activated receptor γ1. Proc.Natl.Acad.Sci.U.S.A. ***98*** 2443. PMID: 11226258.