

Certificate of Analysis

Print Date: Jan 11th 2016

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Product Name: GW 0742 Catalog No.: 2229 Batch No.: 4

CAS Number: 317318-84-6

IUPAC Name: [4-[[[2-[3-Fluoro-4-(trifluoromethyl)phenyl]-4-methyl-5-thiazolyl]methyl]thio]-2-methylphenoxy]acetic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{21}H_{17}F_4NO_3S_2$

Batch Molecular Weight: 471.49 **Physical Appearance:** White solid

Solubility: ethanol to 50 mM

DMSO to 100 mM

Storage: Desiccate at +4°C

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: $R_f = 0.3$ (Chloroform:Methanol [9:1])

HPLC: Shows 98.7% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 53.5 3.63 2.97 Found 53.19 3.61 3.11



Product Information

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Description:

Potent and highly selective PPAR δ agonist. EC $_{50}$ values are 0.001, 1.1 and 2 μ M for transactivation of human PPAR δ , - α , and - γ receptors respectively. Neuroprotective in rat cerebellar granule neuronal cultures after brief (12-hour) exposure but exhibits inherent toxicity after prolonged (48-hour) incubation. Increases rate of fatty acid oxidation and protects against ischemia/reperfusion injury in neonatal and adult cardiomyocytes.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{21}H_{17}F_4NO_3S_2$

Batch Molecular Weight: 471.49 Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:

Storage: Desiccate at +4°C

Solubility & Usage Info:

ethanol to 50 mM 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:

Sznaidman *et al* (2003) Novel selective small molecule agonists for peroxisome proliferator-activated receptor δ (PPARδ) - Synthesis and biological activity. Bioorg.Med.Chem.Lett. *13* 1517. PMID: 12699745.

Smith *et al* (2004) Effect of the peroxisome proliferator-activated receptor β activator GW0742 in rat cultured cerebellar granule neurons. J.Neurosci.Res. **77** 240. PMID: 15211590.

Yue et al (2008) In vivo activation of peroxisome proliferator-activayed receptor-δ protects the heart from ischemia/reperfusion injury in Zucker fatty rats. J.Pharm.Exp.Ther. 325 466.