TOCRIS
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Print Date: Jun 24th 2016

# Certificate of Analysis

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**Product Name:** **GW 7647** **Catalog No.: 1677** **Batch No.: 3**

CAS Number: 265129-71-3

IUPAC Name: 2-[[4-[2-[[(Cyclohexylamino)carbonyl](4-cyclohexylbutyl)amino]ethyl]phenyl]thio]-2-methylpropanoic acid

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** $C_{29}H_{46}N_2O_3S$

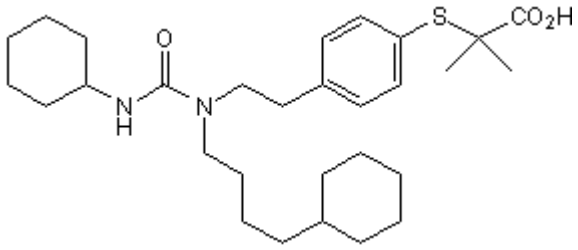
**Batch Molecular Weight:** 502.75

**Physical Appearance:** White solid

**Solubility:** ethanol to 25 mM
DMSO to 100 mM

**Storage:** Store at RT

**Batch Molecular Structure:**




## 2. ANALYTICAL DATA

**TLC:** $R_f$ = 0.54 (Dichloromethane:Methanol [9:1])

**HPLC:** Shows 99.7% purity

**$^1$H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

| | Carbon | Hydrogen | Nitrogen |
|---|---|---|---|
| Theoretical | 69.28 | 9.22 | 5.57 |
| Found | 69.59 | 9.19 | 5.55 |



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**Description:**

Potent and highly selective PPARα agonist ($EC_{50}$ values are 6, 1100 and 6200 nM for human PPARα, PPARγ and PPARδ receptors respectively). Modulates oleate metabolism and mitochondrial enzyme gene expression in mature myotubules in vitro. Has lipid-lowering effects following oral administration in vivo. Reduces NO production in macrophages; exhibits anti-inflammatory properties.

**Physical and Chemical Properties:**

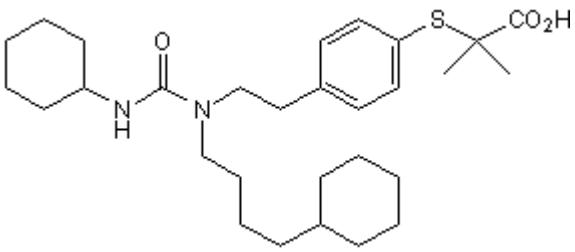
Batch Molecular Formula: $C_{29}H_{46}N_2O_3S$

Batch Molecular Weight: 502.75

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**




**Storage:** Store at RT

**Solubility & Usage Info:**

ethanol to 25 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:**

**Paukkeri** *et al* (2007) PPARalpha agonists inhibit nitric oxide production by enhancing iNOS degradation in LPS-treated macrophages. Br.J.Pharmacol. ***152*** 1081. PMID: 17891158.

**Cunard** *et al* (2002) Regulation of cytokine expression by ligands of peroxisome proliferator activated receptors. J.Immunol. ***168*** 2795. PMID: 11884448.

**Muoio** *et al* (2002) Peroxisome proliferator-activated receptor-α regulates fatty acid utilization in primary human skeletal muscle cells. Diabetes ***51*** 901. PMID: 11916905.

**Brown** *et al* (2001) Identification of a subtype selective human PPARα agonist through parallel-array synthesis. Bioorg.Med.Chem.Lett. ***11*** 1225. PMID: 11354382.