

**Product Name:** FIT

**Catalog No.:** 1480

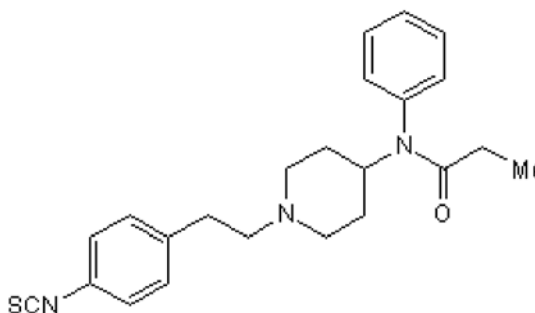
**Batch No.:** 2

CAS Number: 85951-63-9

IUPAC Name: *N*-[1-[2-(4-Isothiocyanatophenyl)ethyl]-4-piperidinyl]-*N*-phenylpropanamide

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>23</sub>H<sub>27</sub>N<sub>3</sub>OS  
**Batch Molecular Weight:** 393.55  
**Physical Appearance:** White crystalline solid  
**Solubility:** ethanol to 100 mM  
 DMSO to 10 mM  
**Storage:** Desiccate at -20°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.19 (Ethyl acetate:Petroleum ether [1:3])  
**Melting Point:** At 100°C  
**HPLC:** Shows >99.4% purity  
<sup>1</sup>H NMR: Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen	Sulfur
Theoretical	70.2	6.91	10.68	8.15
Found	70.35	6.95	10.71	7.87

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**Description:**

Selective and irreversible  $\delta$ -opioid agonist ( $EC_{50}$  = 8 nM); acts by alkylating the receptor.

**Physical and Chemical Properties:**

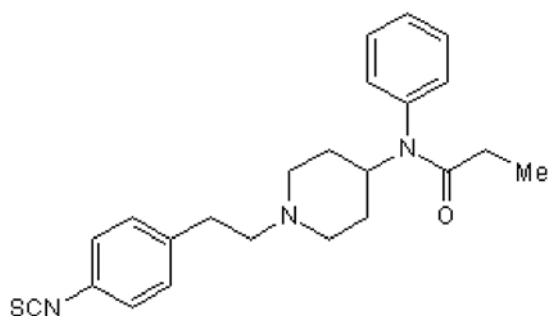
Batch Molecular Formula:  $C_{23}H_{27}N_3OS$

Batch Molecular Weight: 393.55

Physical Appearance: White crystalline solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Desiccate at -20°C

**Solubility & Usage Info:**

ethanol to 100 mM

DMSO to 10 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:**

**Schoffelmeer *et al*** (1988)  $\mu$ -,  $\delta$ - and  $\kappa$ -opioid receptor-mediated inhibition of neurotransmitter release and adenylate cyclase activity in rat brain slices: studies with fentanyl isothiocyanate. *Eur.J.Pharmacol.* **154** 169. PMID: 2906610.

**Rothman *et al*** (1985) Evidence that the delta-selective alkylating agent, fit, alters the mu-noncompetitive opiate delta binding site. *Neuropeptides* **6** 227. PMID: 2991807.

**Rice *et al*** (1983) Irreversible ligands with high selectivity toward  $\delta$  or  $\mu$  opiate receptors. *Science* **220** 314. PMID: 6132444.

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