Print Date: Oct 12th 2022

Certificate of Analysis

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Product Name: **YM 750** **Catalog No.: 3039** **Batch No.: 1**

CAS Number: 138046-43-2

IUPAC Name: *N*-Cycloheptyl-*N*-(9*H*-fluoren-2-ylmethyl)-*N*'-(2,4,6-trimethylphenyl)urea

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{31}H_{36}N_2O$

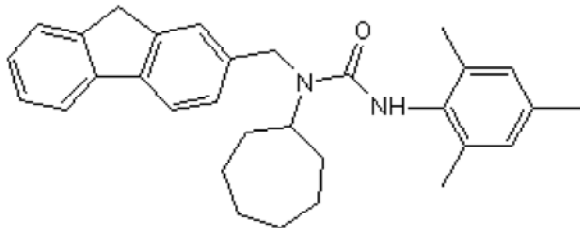
Batch Molecular Weight: 452.63

Physical Appearance: White solid

Solubility: DMSO to 100 mM
ethanol to 10 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.65 (Ethyl acetate:Petroleum ether [1:3])

HPLC: Shows 98.4% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	82.26	8.02	6.19
Found	82.08	8.07	6.16

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Description:

YM 750 is an acyl-CoA:cholesterol acyltransferase (ACAT) inhibitor (IC_{50} = 0.18 µM). Exhibits hypocholesterolaemic and antiatherosclerotic activity in vivo.

Physical and Chemical Properties:

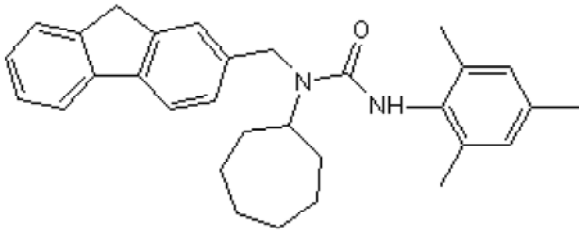
Batch Molecular Formula: $C_{31}H_{36}N_2O$

Batch Molecular Weight: 452.63

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM
ethanol 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.

Licensing Information:

Sold with the permission of Astellas Pharma Inc.

References:

Miike *et al* (2008) Effects of an anti-oxidative ACAT inhibitor on apoptosis/necrosis and cholesterol accumulation under oxidative stress in THP-1 cell dervied foam cells. Life Sci. ***82*** 79. PMID: 18037448.

Kamiya *et al* (2000) Bioavailable acyl-CoA: cholesterol acyltransferase inhibitor with anti-peroxidative activity: synthesis and biological activity of novel indolinyl amide and urea derivatives. Chem.Pharm.Bull. ***48*** 817. PMID: 10866142.

Nagata *et al* (1995) *N*-[2-[N'-pentyl-(6,6-dimethyl-2,4-heptadiynyl)amino]ethyl]-(2-methyl-1-naphthylthio)acetamide (FY-087). A new acyl coenzyme A: cholesterol acyltransferase (ACAT) inhibitor of diet-induced atherosclerosis formation in mice. Biochem.Pharmacol. ***49*** 643. PMID: 7887979.