

Certificate of Analysis

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Product Name: Dapansutrile

Catalog No.: 6902

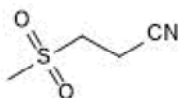
Batch No.: 1

CAS Number: 54863-37-5

IUPAC Name: 3-(Methylsulfonyl)propanenitrile

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₄H₇NO₂S
Batch Molecular Weight: 133.17
Physical Appearance: White solid
Solubility: DMSO to 100 mM
 ethanol to 20 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

GC: Shows 99.5% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	36.08	5.3	10.52
Found	36.08	5.29	10.48

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Product Name: Dapansutrine

Catalog No.: 6902

Batch No.: 1

CAS Number: 54863-37-5

IUPAC Name: 3-(Methylsulfonyl)propanenitrile

Description:

NLRP3 inflammasome inhibitor that disrupts inflammasome formation. Reduces LPS/ATP-induced IL-1 β secretion in human and mouse macrophages in vitro, without affecting TNF α levels. Reduces LPS-induced inflammation in vivo. Also reduces joint swelling and markers of inflammation in synovial fluid in a mouse model of acute arthritis. Displays cardioprotective effects in a mouse model of cardiac ischemic reperfusion injury. OLT1177® is a registered trademark of Olatec Therapeutics LLC in the United States and other countries.

Physical and Chemical Properties:

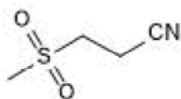
Batch Molecular Formula: C₄H₇NO₂S

Batch Molecular Weight: 133.17

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Toldo et al (2019) The NLRP3 inflammasome inhibitor, OLT1177® (Dapansutrine), reduces infarct size and preserves contractile function after ischemia reperfusion injury in the mouse. *J.Cardiovasc.Pharmacol.* **73** 215. PMID: 30747785.

Marchetti et al (2018) OLT1177®, a β -sulfonyl nitrile compound, safe in humans, inhibits the NLRP3 inflammasome and reverses the metabolic cost of inflammation. *Proc.Natl.Acad.Sci.USA.* **115** E1530. PMID: 29378952.

Marchetti et al (2018) NLRP3 inflammasome inhibitor OLT1177® suppresses joint inflammation in murine models of acute arthritis. *Arthritis Res.Ther.* **20** 169. PMID: 30075804.

Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 20 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.

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