Certificate of Analysis

Product Name: **LDN 212320** **Catalog No.: 5082** **Batch No.: 1**

CAS Number: 894002-50-7

IUPAC Name: 3-[[(2-Methylphenyl)methyl]thio]-6-(2-pyridinyl)-pyridazine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{17}H_{15}N_3S$

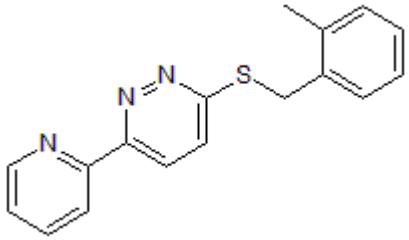
Batch Molecular Weight: 293.39

Physical Appearance: Beige solid

Solubility: DMSO to 100 mM
ethanol to 20 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

Melting Point: At 101°C

HPLC: Shows 99.8% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	69.59	5.15	14.32
Found	69.5	5.21	14.36

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Description:

Increases expression of glutamate transporter EAAT2 in PA-EAAT2 cells. Displays neuroprotective activity in vivo. Shown to improve learning and memory, restore synaptic integrity and reduce amyloid plaque burden in APPSw/Ind mice.

Physical and Chemical Properties:

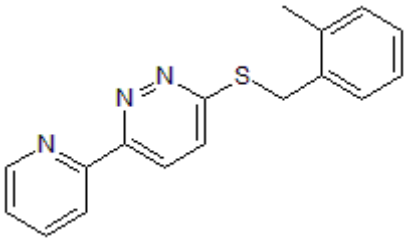
Batch Molecular Formula: $C_{17}H_{15}N_3S$

Batch Molecular Weight: 293.39

Physical Appearance: Beige solid

Minimum Purity: >98%

Batch Molecular Structure:



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.

References:

Xing *et al* (2011) Structure-activity relationship study of pyridazine derivatives as glutamate transporter EAAT2 activators. Bioorg.Med.Chem.Lett. ***21*** 5774. PMID: 21875806.

Lin *et al* (2012) Glutamate transporter EAAT2: a new target for the treatment of neurodegenerative diseases. Future Med Chem ***4*** 1689. PMID: 22924507.

Lin *et al* (2013) : Mechanism of LDN-212320 induction of glutamate transporter EAAT2 expression . Society for Neuroscience (Abstract) 99.

Takahashi *et al* (2013) A small molecule modulator of glutamate transporter EAAT2 ameliorates Alzheimer's-like pathologies and memory deficits in APPSw/Ind mice. Society for Neuroscience (Abstract) 103.