



# **Certificate of Analysis**

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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:293.39Physical Appearance:Beige solid

Solubility: DMSO to 100 mM

ethanol to 20 mM

Storage: Store at -20°C

**Batch Molecular Structure:** 

## 2. ANALYTICAL DATA

HPLC: Shows 99.8% purity

1H 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



# **Product Information**

Print Date: Mar 8th 2014

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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<sub>17</sub>H<sub>15</sub>N<sub>3</sub>S 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 (19) 5774. PMID: 21875806.

Lin et al (2012) Glutamate transporter EAAT2: a new target for the treatment of neurodegenerative diseases. Future Med Chem 4 (13) 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.

