

## Certificate of Analysis

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**Product Name:** Alda 1

**Catalog No.:** 4005

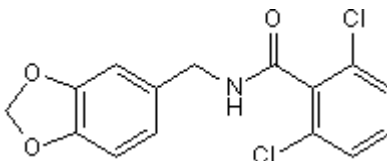
**Batch No.:** 1

CAS Number: 349438-38-6

IUPAC Name: *N*-(1,3-Benzodioxol-5-ylmethyl)-2,6-dichlorobenzamide

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>15</sub>H<sub>11</sub>Cl<sub>2</sub>NO<sub>3</sub>  
**Batch Molecular Weight:** 324.16  
**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<sub>f</sub> = 0.68 (Chloroform:Methanol [97:3])  
**HPLC:** Shows 99.5% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	55.58	3.42	4.32
Found	55.48	3.26	4.29

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

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**Description:**

Activator of aldehyde dehydrogenase 2 (ALDH2). Increases activity of wild-type ALDH2\*1 and variant ALDH2\*2 (by ~2-fold and 11-fold respectively). Capable of partly restoring mutant ALDH2\*2 activity; protective against cardiac ischemia.

**Physical and Chemical Properties:**

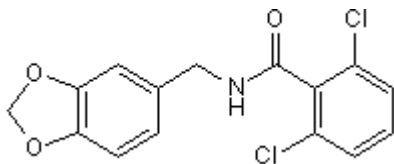
Batch Molecular Formula: C<sub>15</sub>H<sub>11</sub>Cl<sub>2</sub>NO<sub>3</sub>

Batch Molecular Weight: 324.16

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**References:**

**Chen *et al*** (2008) An activator of mutant and wildtype aldehyde dehydrogenase reduces ischemic damage to the heart. *Science* **321** 1493. PMID: 18787169.

**Beretta *et al*** (2010) Characterization of the East Asian variant of aldehyde dehydrogenase-2. Bioactivation of nitroglycerin and effects of alda-1. *J.Biol.Chem.* **285** 943. PMID: 19906643.

**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.

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