

Certificate of Analysis

Print Date: Oct 31st 2017

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Product Name: PD 150606 Catalog No.: 1269 Batch No.: 2

CAS Number: 179528-45-1

IUPAC Name: (Z)-3-(4-lodophenyl)-2-mercapto-2-propenoic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

C9H7IO2S **Batch Molecular Formula:** 306.12 **Batch Molecular Weight: Physical Appearance:** Yellow solid

Solubility: DMSO to 100 mM

ethanol to 50 mM

Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: $R_f = 0.1$ (Dichloromethane:Methanol [85:15])

HPLC: Shows 99.4% purity

¹H NMR: Consistent with structure Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

> Theoretical 35.31 2.3

Found 35.28 2.33 0.1

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Product Information

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IUPAC Name: (Z)-3-(4-lodophenyl)-2-mercapto-2-propenoic acid

Description:

Selective, cell-permeable non-peptide calpain inhibitor (K_i values for v and m-calpains are 0.21 and 0.37 μ M respectively). Targets the calcium binding sites of calpain. Demonstrates high specificity for calpains relative to other proteases, and is a non-competitive inhibitor with respect to the substrate.

Physical and Chemical Properties:

Batch Molecular Formula: C₉H₇IO₂S Batch Molecular Weight: 306.12 Physical Appearance: Yellow solid

Minimum Purity: >95%

Batch Molecular Structure:

Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 100 mM ethanol to 50 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:

Squier et al (1999) Calpain and calpastatin regulate neutrophil apoptosis. J.Cell Physiol. 178 311. PMID: 9989777.

Waters et al (1997) Calpains mediate calcium chloride influx during the late phase of cell injury. J.Pharmacol.Exp.Ther. 283 1177. PMID: 9399991.

Wang et al (1996) An alpha-mercaptoacrylic acid derivative is a selective nonpeptide cell-permeable calpain inhibitor and is neuroprotective. Proc.Natl.Acad.Sci.U.S.A. 93 6687. PMID: 8692879.