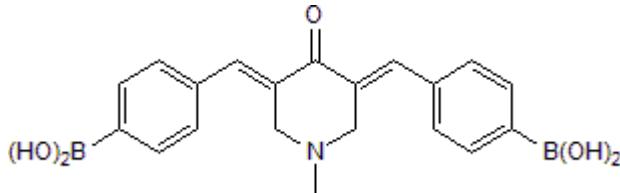


Certificate of Analysis**Product Name:** AM 114**Catalog No.:** 2564**Batch No.:** 1**CAS Number:** 856849-35-9**IUPAC Name:** 3,5-Bis-[benzylidene-4-boronic acid]-1-methylpiperidin-4-one**1. PHYSICAL AND CHEMICAL PROPERTIES****Batch Molecular Formula:** C₂₀H₂₁B₂NO₅·½H₂O**Batch Molecular Weight:** 381.51**Physical Appearance:** Yellow solid**Solubility:** DMSO to 10 mM**Storage:** Store at +4°C**Batch Molecular Structure:****2. ANALYTICAL DATA****TLC:** R_f = 0.2 (Dichloromethane:Methanol [9:1])**HPLC:** Shows 97.4% purity**¹H NMR:** Consistent with structure**Mass Spectrum:** Consistent with structure**Microanalysis:** Carbon Hydrogen Nitrogen

Theoretical 62.97 5.68 3.67

Found 62.76 5.6 3.54

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

Product Information

www.tocris.com**Product Name:** AM 114**Catalog No.:** 2564**Batch No.:** 1

CAS Number: 856849-35-9

IUPAC Name: 3,5-Bis-[benzylidene-4-boronic acid]-1-methylpiperidin-4-one

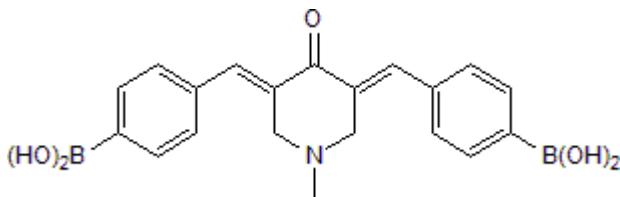
Description:

Inhibitor of the chymotrypsin-like activity of the 20S proteasome ($IC_{50} \sim 1 \mu M$). Displays anticancer activity; inhibits cell growth in human colon cancer HCT116 p53^{+/+} cells ($IC_{50} = 1.49 \mu M$).

Physical and Chemical Properties:Batch Molecular Formula: $C_{20}H_{21}B_2NO_5 \cdot \frac{1}{4}H_2O$

Batch Molecular Weight: 381.51

Physical Appearance: Yellow solid

Minimum Purity: >97%**Batch Molecular Structure:****Storage:** Store at +4°C**Solubility & Usage Info:**

DMSO 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.

References:

Achanta et al (2005) Preferential killing of cancer cells with wild-type p53 by boronic chalcones. *Proc.Am.Assoc.Cancer Res.Abstr.* **46** 6162.

Achanta et al (2006) A boronic-chalcone derivative exhibits potent anticancer activity through inhibition of the proteasome. *Mol.Pharmacol.* **70** 426. PMID: 16636137.

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