

Certificate of Analysis

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Product Name: HBX 41108

Catalog No.: 4285

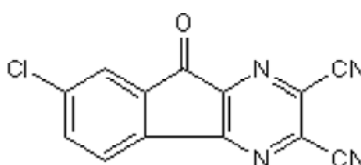
Batch No.: 9

CAS Number: 924296-39-9

IUPAC Name: 7-Chloro-9-oxo-9*H*-indeno[1,2-*b*]pyrazine-2,3-dicarbonitrile

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₃H₃ClN₄O.
Batch Molecular Weight: 266.64
Physical Appearance: Yellow solid
Solubility: DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.5% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	58.56	1.13	21.01
Found	58.58	1.15	20.94

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

bio-techne.com
 info@bio-techne.com
 techsupport@bio-techne.com

North America
 Tel: (800) 343 7475

China
 info.cn@bio-techne.com
 Tel: +86 (21) 52380373

Europe Middle East Africa
 Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
 Tel:+1 612 379 2956

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Description:

HBX 41108 is an inhibitor of ubiquitin-specific protease (USP) 7 activity ($IC_{50} = 424$ nM). Displays uncompetitive inhibition. Also inhibits USP7-mediated p53 deubiquitination ($IC_{50} = 0.8$ μ M). Stabilizes p53 and inhibits cancer cell growth; induces p53-dependent apoptosis in p53 wild type and null isogenic cancer cell lines.

Physical and Chemical Properties:

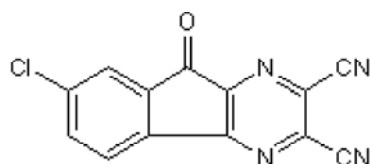
Batch Molecular Formula: C₁₃H₃CIN₄O.

Batch Molecular Weight: 266.64

Physical Appearance: Yellow solid

Minimum Purity: $\geq 98\%$

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

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.

Licensing Information:

Sold for research use only under patent license from Hybrigenics S.A.

References:

Colombo *et al* (2010) Synthesis and biological evaluation of 9-oxo-9H-indeno[1,2-b]pyrazine-2,3-dicarbonitrile analogues as potential inhibitors of deubiquitinating enzymes. *ChemMedChem* **5** 552. PMID: 20186914.

Colland *et al* (2009) Small-molecule inhibitor of USP7/HAUSP ubiquitin protease stabilizes and activates p53 in cells. *Mol.Cancer Ther.* **8** 2286. PMID: 19671755.

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