

**Product Name:** Lenalidomide

**Catalog No.:** 6305

**Batch No.:** 2

CAS Number: 191732-72-6

IUPAC Name: 3-(4-Amino-1,3-dihydro-1-oxo-2*H*-isoindol-2-yl)-2,6-piperidinedione

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>13</sub>H<sub>13</sub>N<sub>3</sub>O<sub>3</sub>·¼H<sub>2</sub>O

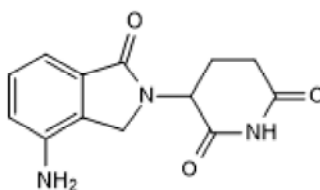
**Batch Molecular Weight:** 263.76

**Physical Appearance:** Off White solid

**Solubility:** DMSO to 100 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 100% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	59.2	5.16	15.93
Found	59.53	4.84	16.07

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**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:**

Thalidomide analog. Immune modulatory drug and cereblon binding compound. Induces ubiquitination and degradation of casein kinase (CK) 1 $\alpha$  by the E3 ubiquitin ligase CRL4<sup>CRBN</sup>. Also TNF- $\alpha$  inhibitor and angiogenesis inhibitor. Promotes degradation of transcription factor SALL4.

**Physical and Chemical Properties:**

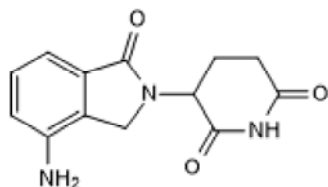
Batch Molecular Formula: C<sub>13</sub>H<sub>13</sub>N<sub>3</sub>O<sub>3</sub>·½H<sub>2</sub>O

Batch Molecular Weight: 263.76

Physical Appearance: Off White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**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.

**References:**

**Donovan *et al*** (2018) Thal. promotes degradation of SALL4, a transcription factor implicated in Duane Radial Ray Syndrome. *Elife* **7** e38430. PMID: 30067223.

**Petzold *et al*** (2016) Structural basis of lenalidomide-induced CK1 $\alpha$  degradation by the CRL4(CRBN) ubiquitin ligase. *Nature* **532** 127. PMID: 26909574.

**Krönke *et al*** (2015) Lenalidomide induces ubiquitination and degradation of CK1 $\alpha$  in del(5q) MDS. *Nature* **523** 183. PMID: 26131937.

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