

Product Name: Eeyarestatin I

Catalog No.: 3922

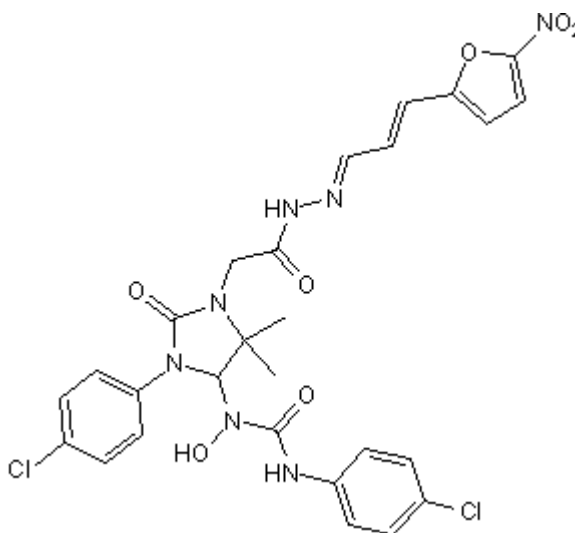
Batch No.: 2

CAS Number: 412960-54-4

IUPAC Name: 3-(4-Chlorophenyl)-4-[[[(4-chlorophenyl)amino]carbonyl]hydroxyamino]-5,5-dimethyl-2-oxo-1-imidazolidineacetic acid 2-[3-(5-nitro-2-furanyl)-2-propen-1-ylidene]hydrazide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₇H₂₅Cl₂N₇O₇
Batch Molecular Weight: 630.44
Physical Appearance: Orange solid
Solubility: DMSO to 100 mM
 ethanol to 5 mM with gentle warming
Storage: Desiccate at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.2% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	51.43	4	15.55
Found	51.34	3.87	15.47

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

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Description:

Potent inhibitor of endoplasmic reticulum associated protein degradation (ERAD). Specifically targets the p97-associated deubiquinating process (PAD) and inhibits ataxin-3 (atx3)-dependent deubiquitination. Also inhibits Sec61-mediated protein translocation at the ER. Displays cytotoxic activity preferentially against cancer cells; induces cell death via the proapoptotic protein NOXA.

Physical and Chemical Properties:

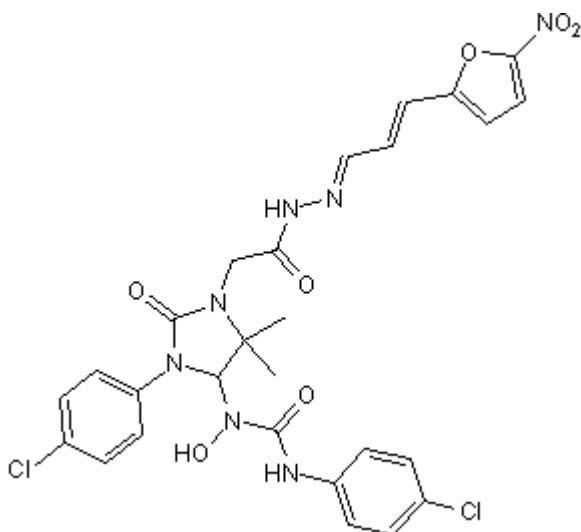
Batch Molecular Formula: C₂₇H₂₅Cl₂N₇O₇

Batch Molecular Weight: 630.44

Physical Appearance: Orange solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Desiccate at +4°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 5 mM with gentle warming

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:

Wang et al (2008) Inhibition of p97-dependent protein degradation by eeyarestatin I. *J.Biol.Chem.* **283** 7445. PMID: 18199748.

Wang et al (2008) ERAD inhibitors integrate ER stress with an epigenetic mechanism to activate BH3-only protein NOXA in cancer cells. *Proc.Natl.Acad.Sci.USA* **106** 2200.

Cross et al (2009) Eeyarestatin I inhibits Sec61-mediated protein translocation at the endoplasmic reticulum. *J.Cell Science* **122** 4393.

Aletrari et al (2011) Eeyarestatin 1 interferes with both retrograde and anterograde intracellular trafficking pathways. *PLoS One* **6** e22713. PMID: 21799938.

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