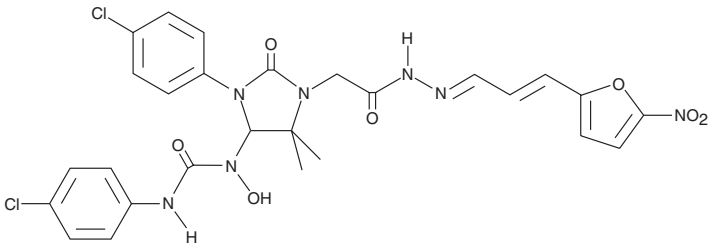
PRODUCT INFORMATION

Eeyarestatin 1

Item No. 10012609

CAS Registry No.: 412960-54-4
Formal 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
MF: $C_{27}H_{25}Cl_2N_7O_7$
FW: 630.4
Purity: ≥98%
UV/Vis.: λ_{max}: 245, 285, 380 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Eeyarestatin 1 is supplied as a crystalline solid. A stock solution may be made by dissolving the eeyarestatin 1 in the solvent of choice, which should be purged with an inert gas. Eeyarestatin 1 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of eeyarestatin 1 in these solvents is approximately 30 mg/ml.

Description

Terminally misfolded proteins, recognized by chaperones on the endoplasmic reticulum (ER), are transported to depots for ubiquitination and proteasomal degradation by the ER-associated protein degradation (ERAD) pathway. Eeyarestatin 1 is an inhibitor of the ERAD pathway, blocking the degradation of misfolded proteins at a dose of 8 µM.[1] It associates with the p97-associated deubiquitinating complex in cells, preventing deubiquitination of substrates by ataxin-3.[2,3] Eeyarestatin 1, at 4 µM, interferes with both retrograde and anterograde trafficking of proteins, including certain toxins, and potentially, viruses.[4]

References

1. Fiebiger, E., Hirsch, C., Vyas, J.M., *et al.* Dissection of the dislocation pathway for type I membrane proteins with a new small molecule inhibitor, eeyarestatin. *Mol. Biol. Cell* **15(4)**, 1635-1646 (2004).
2. Wang, Q., Li, L., and Ye, Y. Inhibition of p97-dependent protein degradation by Eeyarestatin I. *J. Biol. Chem.* **283(12)**, 7445-7454 (2008).
3. Wang, Q., Shinkre, B.A., Lee, J.G., *et al.* The ERAD inhibitor Eeyarestatin I is a bifunctional compound with a membrane-binding domain and a p97/VCP inhibitory group. *PLoS One* **5(11)**, 1-12 (2010).
4. Aletrari, M.O., McKibbin, C., Williams, H., *et al.* Eeyarestatin 1 interferes with both retrograde and anterograde intracellular trafficking pathways. *PLoS One* **6(7)**, 1-11 (2011).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM