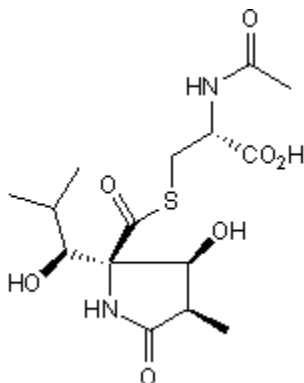


Lactacystin

Cat. No. 2267

Price 200 µg / \$249



Chemical Name: (2*R*,3*S*,4*R*)-3-Hydroxy-2-[(1*S*)-1-hydroxy-2-methylpropyl]-4-methyl-5-oxo-2-pyrrolidinecarboxy-*N*-acetyl-L-cysteine thioester

Biological Activity

A cell-permeable, potent and selective proteasome inhibitor. A *Streptomyces* metabolite that is thought to bind irreversibly to the active site N-terminal threonine residue of the catalytic β -subunit of the 20S proteasome, thereby inhibiting its chymotrypsin and trypsin-like activities. Induces neurite outgrowth in Neuro 2a neuroblastoma cells and has been reported to induce apoptosis in human monoblast U937 cells. Also inhibits NF- κ B activation ($IC_{50} = 10 \mu M$).

Technical Data

M.Wt:

376.42

Storage:

Desiccate at -20°C

Formula:

C₁₅H₂₄N₂O₇S

CAS No:

133343-34-7

Solubility:

Soluble to 10 mM in water

The technical data provided above is for guidance only.
For batch specific data refer to the Certificate of Analysis.

References

Omura *et al* (1991) Lactacystin, a novel microbial metabolite, induces neuritogenesis of neuroblastoma cells. *J.Antibiot.* **44** 113. PMID: [1848215](#).

Fenteany *et al* (1995) Inhibition of proteasome activities and subunit-specific amino-terminal threonine modification by lactacystin. *Science* **268** 726. PMID: [7732382](#).

Bellas *et al* (1997) Inhibition of NF- κ B activity induces apoptosis in murine hepatocytes. *Am.J.Pathol.* **151** 891. PMID: [9327720](#).

If you know of a relevant citation for this product [please let us know](#).

Keywords: Lactacystin, Supplier, Cell-permeable, potent, selective, proteasome, inhibitors, Proteasome, Proteinases, Proteases

Phone: (800) 343-7475 (612) 379-2956

Fax: (612) 656-4400

Email: customerservice@rndsystems.com