

Lactacystin

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

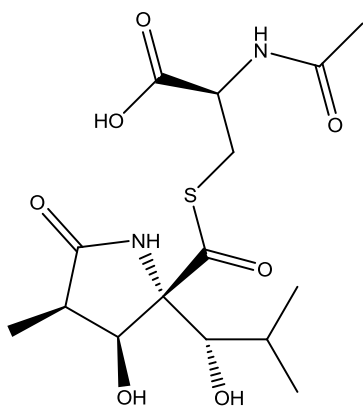
Cat. # SI9760

Background: Lactacystin is a cell-permeable, potent and selective proteasome inhibitor that binds irreversibly to the catalytic β -subunit of the 20S proteasome inhibiting its chymotrypsin and trypsin-like activities. Also known to inhibit NF- κ B activation (IC_{50} = 10 μ M).

Application: Inhibition of the 20S proteasome

Product Information

CAS No.	133343-34-7
Purity:	> 98% by TLC; NMR (conforms)
Molecular Weight:	376.42
Physical State:	White solid
Quantity:	200 μ g
Solubility:	10 mg/mL (water); 20 mg/mL (DMSO)
Storage:	Store solutions at -20°C for up to one month



Formula: C₁₅H₂₄N₂O₇

References

1. Fenteany et al. Inhibition of proteasome activities and subunit-specific amino-terminal threonine modification by lactacystin. *Science* 1995, **268**, 726.
2. Kozłowski L et al. Lactacystin inhibits cathepsin A activity in melanoma cell lines. *Tumour Biol.* 2001, **22**, 211.
3. Pasquini LA et al. Lactacystin, a specific inhibitor of the proteasome, induces apoptosis and activates caspase-3 in cultured cerebellar granule cells *J. Neurosci Res.* 2000, **59**, 601.

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