

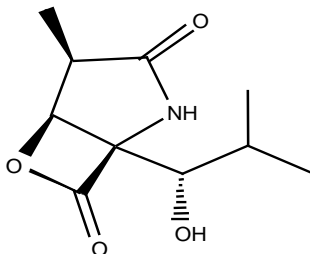
MATERIAL DATA SHEET

Clasto-lactacystin β -lactone

Cat. # I-100

Potent, highly specific, irreversible and cell-permeable inhibitor that covalently modifies the catalytic β subunits of the proteasome. The β -lactone intermediate is generated from the aqueous hydrolysis of lactacystin, and is the active inhibitory species that reacts with the proteasome.

Product Information

Quantity: 200 μ g | 1 mg**Formula:** C₁₀H₁₅NO₄ **FW:** 213.24**Structure:**

Physical/Chemical Characteristics

Solubility: Soluble up to 20 mg/ml and stable in DMSO, MeCN. Subject to hydrolysis in aqueous buffers. Pellet dry compound by centrifugation prior to DMSO addition. Store at -20°C. Avoid multiple freeze/thaw cycles.

Identity: Structure confirmed by ¹H-NMR.

Activity: $k_{\text{obs}} / [\text{I}] = 20,000 \text{ M}^{-1} \text{ s}^{-1}$ vs. 20S:PA28 complex. Inhibits ubiquitin proteasome pathway in cell culture (IC₅₀=1 μ M).

Literature

- References:** Dick R.L., *et al.* (1996) *J. Biol. Chem.* **271**:7273-7276
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Craiu A., *et al.* (1997) *J. Biol. Chem.* **272**:13437-13445
Fenteany G. and Schreiber S.L. (1998) *J. Biol. Chem.* **273**:8545-8548
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Masse C.E., *et al.* (2000) *Eur. J. Org. Chem.* **714**:2513-2528

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