

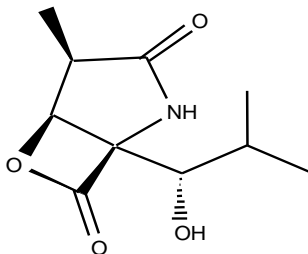
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MATERIAL DATA SHEET**Clasto-lactacystin β -lactone****Cat. # I-100**

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.**Purity:** > 95% by HPLC. Structure confirmed by ¹H-NMR.**Activity:** $k_{\text{obs}} / [I] = 20,000 \text{ M}^{-1} \text{ s}^{-1}$ 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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