

# Lactacystin

Key inhibitor for use in proteasome research.

A potent and selective irreversible proteasome inhibitor. Specifically inhibits 20S proteasome (MCP; multicatalytic complex). Blocks proteasome activity by targeting the catalytic  $\beta$ -subunit. Has no effect on serine or cysteine proteases. Induces apoptosis in human monoblast U937 cells. Inhibits NF- $\kappa$ B activation by inhibiting I $\kappa$ B degradation ( $IC_{50}$ =10  $\mu$ M). Inhibits the ubiquitin proteasome pathway in cell culture. Inhibits cathepsin A. Upregulates HSP70 and HSP22, suggesting an initial neuroprotective pathway. Induces neurite outgrowth in Neuro 2A mouse neuroblastoma cells.

Citations: 75

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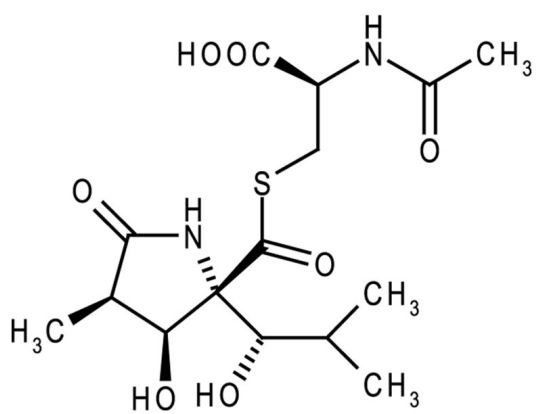
## Ordering Information

[Order Online »](#)

BML-PI104-1000	1mg
BML-PI104-0200	200 $\mu$ g

## Manuals, SDS & CofA

[View Online »](#)



## Handling & Storage

<b>Use/Stability</b>	As indicated on product label or CoA when stored as recommended. Organic stock solutions are stable for 3 months when stored at -20°C. Subject to hydrolysis in aqueous buffers. We do not recommend storing aqueous solutions for more than one day.
<b>Handling</b>	Protect from light. Avoid freeze/thaw cycles.
<b>Long Term Storage</b>	-20°C
<b>Shipping</b>	Ambient Temperature

## Regulatory Status

RUO - Research Use Only

## Product Details

<b>Appearance</b>	White to off-white solid.
<b>CAS</b>	133343-34-7
<b>Couple Target</b>	Proteasome 26S
<b>Couple Type</b>	Inhibitor
<b>Formula</b>	$C_{15}H_{24}N_2O_7S$
<b>Identity</b>	Determined by 1H-NMR and MS.
<b>MW</b>	376.4
<b>Purity</b>	≥97% (HPLC)
<b>Solubility</b>	Soluble in water (10mg/ml), 100% ethanol (1mg/ml), methanol, DMSO (20mg/ml), dimethyl formamide (20mg/ml) or acetonitrile (20mg/ml).
<b>Source</b>	Synthetic



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