

# 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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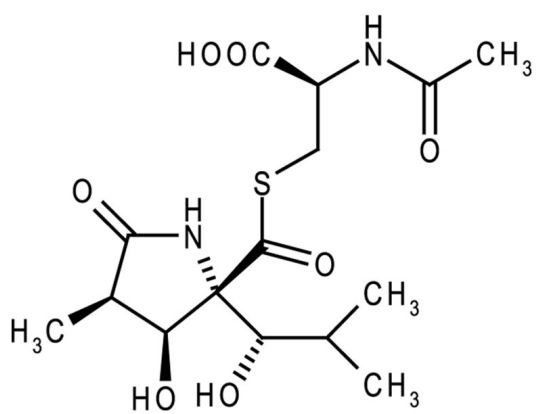
## Ordering Information

[Order Online »](#)

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

## Manuals, SDS & CofA

[View Online »](#)



## Handling & Storage

Use/Stability	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.
Handling	Protect from light. Avoid freeze/thaw cycles.
Long Term Storage	-20°C
Shipping	Ambient Temperature

## Regulatory Status

RUO - Research Use Only

## Product Details

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

Last modified: May 29, 2024



ENZO LIFE SCIENCES,  
INC.  
Phone: 800.942.0430  
[info-  
usa@enzolifesciences.com](mailto:info-usa@enzolifesciences.com)

European Sales Office  
ENZO LIFE SCIENCES  
(ELS) AG  
Phone: +41 61 926 8989  
[info-  
eu@enzolifesciences.com](mailto:info-eu@enzolifesciences.com)

Belgium, The Netherlands  
& Luxembourg  
Phone: +32 3 466 0420  
[info-  
fr@enzolifesciences.com](mailto:info-fr@enzolifesciences.com)

France  
Phone: +33 472 440 655  
[info-  
fr@enzolifesciences.com](mailto:info-fr@enzolifesciences.com)

Germany  
Phone: +49 7621 5500 526  
[info-  
de@enzolifesciences.com](mailto:info-de@enzolifesciences.com)

UK & Ireland  
Phone (UK customers):  
0845 601 1488  
Phone: +44 1392 825900  
[info-  
uk@enzolifesciences.com](mailto:info-uk@enzolifesciences.com)