Lactacystin

Key inhibitor for use in proteasome research.

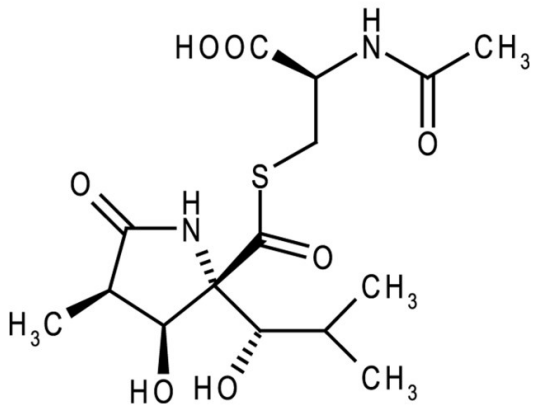
A potent and selective irreversible proteasome inhibitor. Specifically inhibits 20S proteasome (MCP; multicatalytic complex). Blocks proteasome activity by targeting the catalytic β-subunit. Has no effect on serine or cysteine proteases. Induces apoptosis inhuman monoblast U937 cells. Inhibits NF-κB activation by inhibiting IκB degradation (IC_{50}=10 μM). 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 View Online »

Ordering Information Order Online »

BML-PI104-1000	1mg
BML-PI104-0200	200μg

Manuals, SDS & CofA View Online »


HOOC
H
N
CH3
O
S
O
H
N
O
CH3
H3C
HO
HO
CH3

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 solutons 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

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