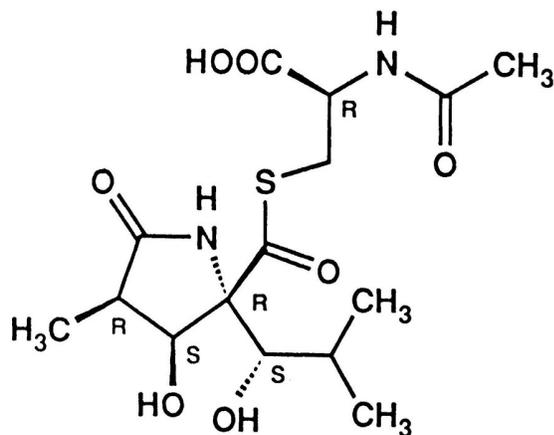


PRODUCT DATA SHEET

Product: Lactacystin

Cat. No.: LC-519 (1 mg)



Formula:

$C_{15}H_{24}N_2O_7S$

Molecular Weight:

376.43

Description:

Lactacystin is a specific inhibitor of the 26S proteasome, a high molecular weight, intracellular, multicatalytic, proteolytic complex that degrades ubiquitinated proteins, abnormal proteins and proteins in the endoplasmic reticulum. First isolated based upon its ability to induce differentiation in neuroblastoma cells, lactacystin is a cell-penetrating proteasome inhibitor that specifically inhibits the 26S proteasome by covalently binding to the active threonine residue in the amino-terminus of the catalytic β subunit. Lactacystin has no effect on serine or cysteine proteases. Proteasome-mediated protein degradation is important in regulating a variety of cell processes, including the cell cycle, differentiation, apoptosis, cholesterol homeostasis and gene transcription.

Production:

Isolated from the culture broth of *Streptomyces* sp. OM-6519.

Format:

Lyophilized powder

Solubility:

Soluble in water, methanol or ethanol. Reconstitute 1 mg in 1 mL water, methanol or ethanol to make a 2.65 mM stock solution.

Storage and Stability:

Lyophilized powder stable for at least one year when stored at 4°C. Store at -20°C for long term storage. Protect from light. Store lactacystin solutions at 4°C. Solutions stable for several months.

Limitations:

For *in vitro* research use only. Not for use in diagnostics or in humans.

Warranty:

No warranties, expressed or implied, are made regarding the use of this product. **KAMIYA BIOMEDICAL COMPANY** is not liable for any damage, personal injury, or economic loss caused by this product.