

Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

Weitere Information auf den folgenden Seiten! See the following pages for more information!



Lieferung & Zahlungsart siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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PRODUCT INFORMATION



(S)-MG132

Item No. 10012628

| CAS Registry No.: | 133407-82-6 | |
|-------------------|---------------------------------------|------------------|
| Formal Name: | N-[(phenylmethoxy)carbonyl]-L-leucyl- | CHO O |
| | N-[(1S)-1-formyl-3-methylbutyl]-L- | |
| | leucinamide | |
| Synonym: | Z-Leu-Leu-CHO | H N |
| MF: | $C_{26}H_{41}N_{3}O_{5}$ | о ^с н |
| FW: | 475.6 | |
| Purity: | ≥98% | |
| Supplied as: | A crystalline solid | |
| Storage: | -20°C | |
| Stability: | ≥2 years | |
| 1 () | | |

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

(S)-MG132 is supplied as a crystalline solid. A stock solution may be made by dissolving the (S)-MG132 in an organic solvent purged with an inert gas. (S)-MG132 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of (S)-MG132 in ethanol is approximately 25 mg/ml and approximately 30 mg/ml in DMSO and DMF.

If aqueous stock solutions are required for biological experiments, they can best be prepared by diluting the organic solvent into aqueous buffers or isotonic saline. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

The ubiquitin-proteasome pathway plays an integral role in the selective degradation of intracellular proteins. While important for clearing damaged or misfolded proteins, this proteolytic pathway also regulates the availability of key proteins involved in the control of inflammatory processes, cell cycle regulation, and gene expression.^{1,2} (S)-MG132 is a potent, reversible and cell permeable proteasome inhibitor that inhibits cell growth in B16 and IPC227F cells with IC₅₀ values of 42 and 77 nM, respectively.³ (S)-MG132 at 10 μ M inhibits NF-KB activation, sensitizing a variety of carcinoma cell lines to apoptosis.⁴

References

- 1. Lee, D.H. and Goldberg, A.L. Proteasome inhibitors: Valuable new tools for cell biologists. Trends Cell Biol. 8, 397-403 (1998).
- 2. Elliott, P.J., Zollner, T.M., and Boehncke, W.-H. Proteasome inhibition: A new anti-inflammatory strategy. J. Mol. Med. 81, 235-245 (2003).
- 3. Vivier, M., Rapp, M., Papon, J., et al. Synthesis, radiosynthesis, and biological evaluation of new proteasome inhibitors in a tumor targeting approach. J. Med. Chem. 51(4), 1043-1047 (2008).
- 4. Arlt, A., Vorndamm, J., Breitenbroich, M., et al. Inhibition of NF-κB sensitizes human pancreatic carcinoma cells to apoptosis induced by etoposide (VP16) or doxorubicin. Oncogene 20, 859-868 (2001).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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