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Product Information

Z-Leu-Leu-Leu-al

Catalog Number **C2211**
Storage Temperature $-20\text{ }^{\circ}\text{C}$

CAS RN 133407-82-6
Synonym: MG132

Product Description

Molecular Formula: $\text{C}_{26}\text{H}_{41}\text{N}_3\text{O}_5$
Molecular Weight: 475.62

Z-Leu-Leu-Leu-al is an inhibitor of proteasome activity.^{1,2} It is a 50-fold stronger initiator of neurite outgrowth than N-acetyl-leu-leu-norleucinal (Catalog Number A6185). Since neurites induced by these inhibitors appear to be different, with a different persistence and a different length than those that occur when the cells are treated with nerve growth factor, dibutyrylcyclic AMP, or basic fibroblast growth factor, they may elicit neurite initiation by different mechanisms.³

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

The product is soluble in DMSO and at 10 mg/ml in a chloroform:methanol solution (95:5).

If addition of a stock DMSO solution of C2211 to culture medium results in formation of a precipitate, the following steps are recommended. Prepare the DMSO stock solution at a concentration such that the final concentration of DMSO in the medium is approximately 0.2% DMSO (v:v). Also, warm both the DMSO stock solution and the medium to approximately $40\text{ }^{\circ}\text{C}$ before mixing them.

References

1. Palombella, et al., The ubiquitin-proteasome pathway is required for processing the NF- κ B1 precursor protein and the activation of NF- κ B. *Cell*, **78**, 773-785 (1994).
2. Wang, et al., TNF- and cancer therapy-induced apoptosis: potentiation by inhibition of NF- κ B. *Science*, **274**, 784-787 (1996).
3. Saito, Y., et al., Isolation and characterization of possible target proteins responsible for neurite outgrowth induced by a tripeptide aldehyde in PC12H cells. *Biochem. Biophys. Res. Commun.*, **184**, 419-426 (1992).

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