

PRODUCT INFORMATION

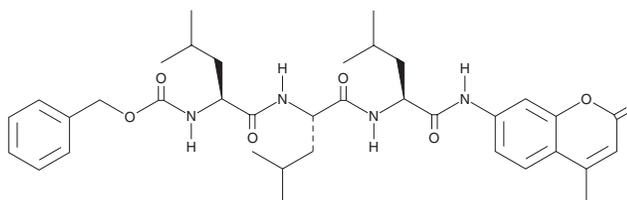


Z-LLL-AMC

Item No. 10008118

CAS Registry No.: 152015-61-7
Formal Name: N-[(phenylmethoxy)carbonyl]-L-leucyl-L-leucyl-N-(4-methyl-2-oxo-2H-1-benzopyran-7-yl)-L-leucinamide
Synonyms: Z-Leu-Leu-Leu-AMC,
Z-Leu-Leu-Leu-7-amido-4-Methylcoumarin,
Proteasome Substrate I

MF: C₃₆H₄₈N₄O₇
FW: 648.8
Purity: ≥98%
Ex./Em. Max: 340-360/440-460 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Z-LLL-AMC is supplied as a solid. A stock solution may be made by dissolving the Z-LLL-AMC in the solvent of choice, which should be purged with an inert gas. Z-LLL-AMC is soluble in organic solvents such as acetone, DMSO, and dimethyl formamide.

Description

Z-LLL-AMC is a fluorogenic substrate for the chymotrypsin-like activity of the 26S proteasome or 20S proteolytic core.¹⁻³ Chymotrypsin-like activity can be quantified by fluorescent detection of free AMC (also known as 7-amino-4-methylcoumarin), which is excited at 340-360 nm and emits at 440-460 nm. Z-LLL-AMC is typically used in cell lysates after experimental treatment.⁴

References

1. Tsubuki, S., Saito, Y., and Kawashima, S. Purification and characterization of an endogenous inhibitor specific to the Z-Leu-Leu-Leu-MCA degrading activity in proteasome and its identification as heat-shock protein 90. *FEBS Lett.* **344(203)**, 229-233 (1994).
2. Tsubuki, S., Kawasaki, H., Saito, Y., *et al.* Purification and characterization of a Z-Leu-Leu-Leu-MCA degrading protease expected to regulate neurite formation: A novel catalytic activity in proteasome *Biochem. Biophys. Res. Commun.* **196(3)**, 1995-1201 (1993).
3. Lynas, J.F., Harriott, P., Healy, A., *et al.* Inhibitors of the chymotrypsin-like activity of proteasome based on di- and tri-peptidyl α -keto aldehydes (glyoxals). *Bioorg. Med. Chem. Lett.* **8(4)**, 373-378 (1998).
4. Figueiredo-Pereira, M.E., Chen, W.E., Li, J., *et al.* The antitumor drug aclacinomycin A, which inhibits the degradation of ubiquitinated proteins, shows selectivity for the chymotrypsin-like activity of the bovine pituitary 20 S proteasome. *J. Biol. Chem.* **271(28)**, 16455-16459 (1996).

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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