

Z-Leu-Leu-Glu-AMC

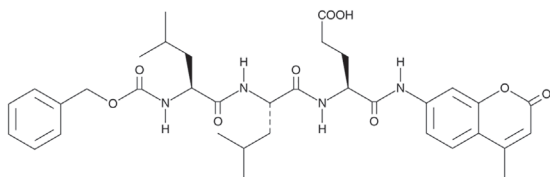
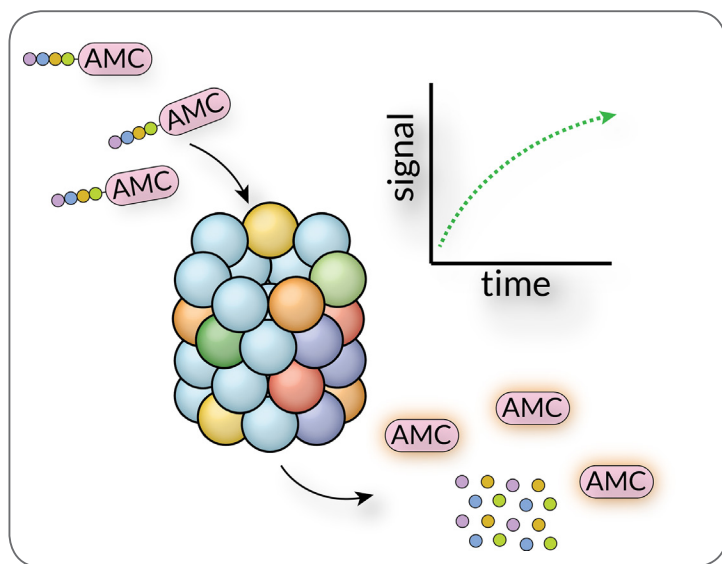
Cat. No. SSB-PS0006
Lot. No. 163060006



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Z-LLE-AMC

Z-LLE-AMC (Carboxybenzyl-Leu-Leu-Glu-AMC) is a 7-amino-4-methylcoumarin labeled fluorogenic peptidyl substrate hydrolyzed by the $\beta 1$ subunit of the 20S proteasome. Peptidylglutamyl-peptide hydrolyzing (Caspase-like) activity can be measured using a working concentration of 20-50 μ M substrate. This substrate is specific to the constitutive proteasome, and is not hydrolyzed efficiently by the immunoproteasome. Cleavage of this peptide by the proteasome or other enzymes liberates the fluorophore AMC causing a strong fluorescent signal which is detected at an Excitation wavelength of 345nm and Emission wavelength of 445nm. 20S Proteasome enzyme requires activation with 0.03% SDS in the assay buffer.



Z-LLE-AMC, Chemical Structure.

Structure of Z-LLE-AMC, 644.8 Da, Ex=345nm, Em=445nm, Cas# 348086-66-8.

Product Information

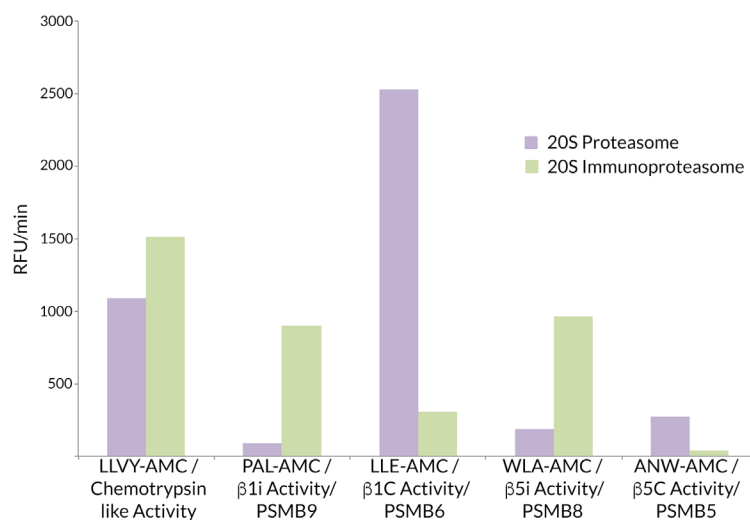
Quantity: 2 mg **Molecular Weight:** 644.8 Da

Concentration: Lyophilized **Purity:** >95% by HPLC

Solubility: 10mM in DMSO **Ex/Em (nm):** 345/445

Storage: Store at 4°C after product arrival. After preparing a stock in DMSO (≥ 10 mM) store product at -20°C to -80°C. It is recommended to make multiple aliquots after the first thaw to ensure best performance.

Quality Control and Performance Data



20S Immunoproteasome vs. 20S Constitutive Proteasome Activity.

LLE-AMC exhibits a high specific activity and preference for 20S constitutive proteasome compared to 20S immunoproteasome.

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References

- 1) Kisselev, Alexei F., and Alfred L. Goldberg. "Monitoring activity and inhibition of 26S proteasomes with fluorogenic peptide substrates." *Methods in enzymology* 398 (2005): 364-378.
 - 2) M. Orlowski, C. Cardozo, M. C. Hidalgo, et al. Regulation of the peptidylglutamyl-peptide hydrolyzing activity of the pituitary multicatalytic proteinase complex. *Biochem.* 30(24), 5999-6005 (1991).
 - 3) Purification and characterization of a Z-Leu-Leu-Leu-MCA degrading protease expected to regulate neurite formation: a novel catalytic activity in proteasome.: S. Tsubuki et al.; *Biochem. Biophys. Res. Commun.* 196, 1195 (1993)
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