MATERIAL DATA SHEET

Z-Leu-Leu-Glu-AMC (Z-LLE-AMC) Cat. S-230

Fluorogenic substrate for measuring the peptidylglutamyl peptide-hydrolyzing activity of the 20S proteasome. The 20S complex is composed of 28 subunits, arranged in an $\alpha_7\beta_7\beta_7\alpha_7$ stoichiometry. Each of the two internal β -type rings harbors three different proteolytically active sites, provided by the amino-terminal residues of three constitutive subunits: β 1 (post-glutamyl peptide hydrolase site), β 2 (trypsin-like site) and β 5 (chymotrypsin-like site).

Product Information

Quantity: 5 mg

Formula: C₃₅H₄₄N₄O₉ **Formula Weight:** 664.8

Structure:

Use:

Physical/Chemical Characteristics

Stock: Lyophilized from a solution of deionized water and acetonitrile

Purity: > 95% by TLC, HPLC. Structure confirmed by NMR.

Use & Storage

Z-LLE-AMC is a fluorogenic substrate for measuring the peptidylglutamyl peptide-

hydrolyzing activity of the 20S proteasome. Release of AMC fluorescence can be monitored with an excitation wavelength of 345 nm and an emission wavelength of

445 nm. Reaction conditions will need to be optimized for each specific application.

Storage: Store DMSO stock at -20°C. Avoid multiple freeze/thaw cycles.



Literature

References: Arendt C. S. and Hochstrasser M. (1997) Proc. Natl. Acad. Sci. **94**: 7156

Coux O., *et al.* (1996) <u>Ann. Rev. Biochem.</u> **65**: 801 Dick T. P., *et al.* (1998) <u>J. Biol. Chem.</u> **273**: 25637 Kisselev A. F., *et al.* (1999) <u>Mol. Cell.</u> **4**: 395 Orlowski M., *et al.* (1993) <u>Biochem.</u> **32**: 1563

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