

Lot # XXXXX

BostonBiochem

MATERIAL DATA SHEET

Z-Leu-Leu-Leu-AMC (Z-LLL-AMC)

Cat. S-220

Fluorogenic substrate for measuring the chymotrypsin-like peptidase 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).

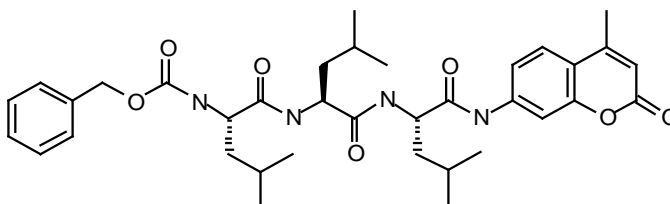
Product Information

Quantity: 5 mg

Formula: $C_{36}H_{48}N_4O_7$

Formula Weight: 648.8

Structure:



Physical/Chemical Characteristics

Stock: Soluble at ≥ 20 mM in DMSO. For best results, pellet dry compound prior to reconstitution.

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

Use & Storage

Use: Z-LLL-AMC is a fluorogenic substrate for measuring the chymotrypsin-like 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.

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Literature

- References:** Arendt C. S. and Hochstrasser M. (1997) Proc. Natl. Acad. Sci. **94**: 7156
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Dick T. P., *et al.* (1998) J. Biol. Chem. **273**: 25637
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