

## MATERIAL DATA SHEET

### Boc-Leu-Arg-Arg-AMC (Boc-LRR-AMC)

#### Cat. # S-300

Fluorogenic tri-peptide substrate for measuring the "trypsin-like" peptidase activity of the 20S proteasome. Each of the two 20S internal  $\beta$ -type rings harbors three different proteolytically active sites:  $\beta$ 1 ("post-glutamyl peptide hydrolase" site),  $\beta$ 2 ("trypsin-like" site) and  $\beta$ 5 ("chymotrypsin-like" site). This peptide is also substrate for the Kex2 endopeptidase from *S. Cerevisiae*, which has substrate specificity toward the C-terminal side of LR, PR and RR sequences. In addition, the peptide can be cleaved by Kalikrein 5 with a P1 site preference for basic residues (R and K).

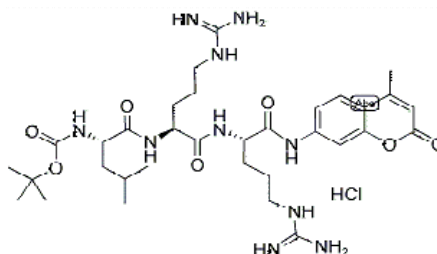
#### Product Information

**Quantity:** 5 mg

**Formula:** C<sub>33</sub>H<sub>52</sub>N<sub>10</sub>O<sub>7</sub>·HCl

**Formula Weight:** 773.76

**Structure:**



#### Physical/Chemical Characteristics

**Solubility:** Soluble in methanol up to 50 mg/ml. For best results, pellet dry compound prior to reconstitution. Solubilize at desired stock concentration.

**Purity:** > 99% as adjudged by thin layer chromatography.

#### Use & Storage

**Use:** Add from stock directly to *in vitro* or *in vivo* assay at desired concentration. Typical concentrations range from 10-100  $\mu$ M. ( $\lambda_{ex}$ : 380nm;  $\lambda_{em}$ : 460 nm)

**Storage:** Store lyophilized powder at -20°C for at least one year. Stock solution at -20°C for up to 1 month. Avoid multiple freeze/thaw cycles.

#### Literature

- References:** Kessler B.M., *et al.* (2001) *Chem. & Biol.* **8**:913-929  
 Kisselev A.F., *et al.* (1999) *Mol. Cell* **4**: 395-402  
 Meng L., *et al.* (1999) *Proc. Natl. Acad. Sci.* **96**: 10403-10408  
 Michael I.P., *et al.* (2005) *J. Biol. Chem.* **96**: 10403-10408  
 Mizuno K., *et al.* (1989) *Biochem. Biophys. Res. Comm.* **159**: 305 –11  
 Reidlinger, J. *et al.* (1997). *J. Biol. Chem.* **272**: 24899-905  
 Tamura T., *et al.* (1996) *Science* **274**: 1385-1389

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840 Memorial Drive, Cambridge, MA 02139 Phone: 617-241-7072 FAX: 617-492-3565,  
[www.bostonbiochem.com](http://www.bostonbiochem.com)