

Ubiquitin AMC

CATALOG #:	4842-25
AMOUNT:	25 µg
PURITY:	≥ 95% by HPLC
MOLECULAR WEIGHT:	8.6 kDa
PHYSICAL APPEARANCE:	Liquid
FORMULATION:	In DMSO (1 mg/ml)
STORAGE CONDITIONS:	Store at -80°C. Avoid freeze/thaw cycles.

DESCRIPTION:

Prepared by the C-terminal derivatisation of ubiquitin with 7-amino-4-methylcoumarin. Acts as a useful and sensitive fluorogenic substrate for a wide range of deubiquitinating enzymes (DUBs), including ubiquitin C-terminal hydrolases (UCHs) and ubiquitin specific proteases (USPs). Ubiquitin-AMC has been shown to be a sensitive substrate for UCH-L3 ($K_m = 0.039\mu\text{M}$) and for Isopeptidase-T ($K_m = 0.17\text{-}1.4\mu\text{M}$), as well as for studying deubiquitinating activity where detection sensitivity or continuous monitoring of activity is essential.

APPLICATION:	<ol style="list-style-type: none">1. As a substrate for deubiquitinating enzyme activity assays2. Identification/confirmation of enzyme deubiquitination activity3. Investigation of deconjugating enzyme substrate specificity in comparison with alternative UBL (ubiquitin-like)-AMC substrates
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ASSAY CONDITIONS:	Substrate Concentration: 0.01- 1.0 µM Enzyme Concentration: 10 -100 pM (UCH-L3); 10 -100 nM (Isopeptidase-T). Fluorescence of AMC released by the enzymes can be monitored using a fluorometer (Ex: 380 nm; Em: 460 nm).
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REFERENCE:	<ol style="list-style-type: none">1. Mason, D.E., <i>et al.</i> (2004). <i>Biochemistry</i> 43, 6535-65442. Dang, L. C., <i>et al.</i> (1998). <i>Biochemistry</i> 37, 1868-1879.
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RELATED PRODUCTS:

- Calpain Inhibitor I, ALLN (**Cat. No. 1834-5, 25**)
- Calpain Inhibitor II, ALLM (**Cat. No. 1834-5, 25**)
- Clasto-Lactacystin β-Lactone (**Cat. No. 1710-100**)
- (-)-Epigallocatechin gallate (**Cat. No. 1841-50**)
- Lactacystin (**Cat. No. 1709-200**)
- MG-115 (**Cat. No. 1831-1, 5**)
- MG-132 (**Cat. No. 1703-5, 25**)
- EZSolution™ MG-132 (**Cat. No. 1791-5**)
- NEDD8-AMC (**Cat. No. 4843-25**)
- Proteasome Substrate, Fluorogenic (**Cat. No. 1832-1, 5**)

FOR RESEARCH USE ONLY! Not to be used on humans.