

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 deubiquitylating 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 deubiquitylating activity where detection sensitivity or continuous monitoring of activity is essential.

APPLICATION:

1. As a substrate for deubiquitylating enzyme activity assays
2. Identification/confirmation of enzyme deubiquitylation activity
3. Investigation of deconjugating enzyme substrate specificity in comparison with alternative UBL (ubiquitin-like)-AMC substrates

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).

REFERENCE:

1. Mason, D.E., *et al.* (2004). *Biochemistry* **43**, 6535-6544
2. Dang, L. C., *et al.* (1998). *Biochemistry* **37**, 1868-1879.

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**)

USAGE:**FOR RESEARCH USE ONLY! Not to be used in humans**