

Ubiquitin (bovine), (native) (methylated)

Octa-dimethyl-ubiquitin: $(\text{CH}_3)_2$ -MQIFVK*TLTGK*TITLEVEPSDTIENV
K*AK*IQDK*EGIPPDQQRLIFAGK*QLEDGR
TLSDYNIQK*ESTLHLVLRIRGG-OH where K* = (ϵ -dimethyl)lysyl.

Reductive methylation of the seven internal lysine ϵ -amino groups as well as the α -amino group to give, in this case, the octa-dimethyl derivative renders ubiquitin unable to form multi-ubiquitin chains via lysine linkages. However, the ability of this methylated ubiquitin to form an active C-terminal thioester is preserved and it may be transferred by ubiquitin-activating and conjugating enzymes (E1 and E2s) to lysine residues within substrate proteins to yield monoubiquitylated products.

Citations: 1

[View Online »](#)

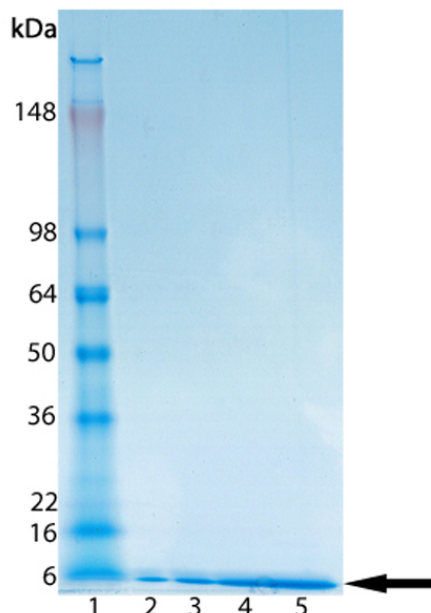
Ordering Information

[Order Online »](#)

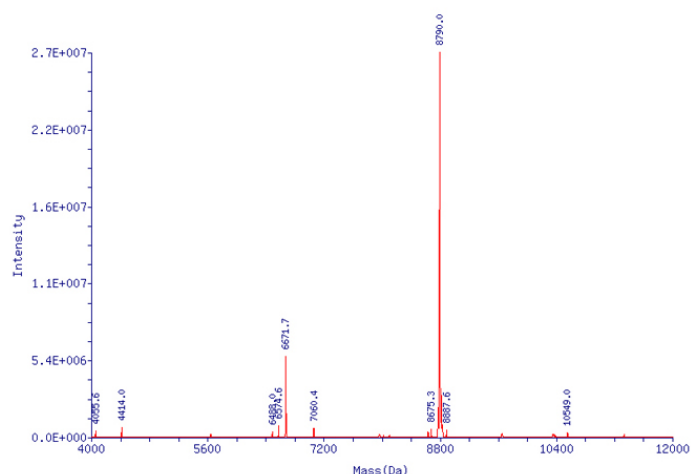
BML-UW8555-0001	1mg
-----------------	-----

Manuals, SDS & CofA

[View Online »](#)



SDS-PAGE Analysis: Lane 1: MW Marker, Lane 2: 0.5 μ g, Lane 3: 1.0 μ g, Lane 4: 2.0 μ g, Lane 5: 5.0 μ g of Purified Ubiquitin (methylated) (bovine), (native) (Prod. No. BML-UW8555).



Mass spectrum analysis by electrospray ionization mass spectrometry, (see image) indicates the octa-dimethylated ubiquitin molecular weight at 8790 Da (\pm 1.6 Da), doubly charged species present at 6671.7 Da. This is fully consistent with the anticipated molecular weight, given that for parent ubiquitin a molecular weight of 8565.4 Da (\pm 1.6 Da) is observed under identical conditions. There is no un-derivatized ubiquitin present. The signal observed at 8675.3 Da is attributable to a minor contaminant in the starting ubiquitin and is not due to the presence of octa-monomethylated ubiquitin. All other minor signals observed are at background level and are not indicative of protein artifacts.

Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended. Store solid cold and dry at -20C; stable for at least one year. Store solutions at -20C for up to three months. The protein is stable to multiple freeze-thaw cycles.
Long Term Storage	-20°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Appearance	White solid.
Application Notes	<p>Simplifies kinetics for E1-catalyzed active thioester formation.</p> <p>Typical concentrations for non-rate limiting support of <i>in vitro</i> conjugation reactions lie in the range 200µM to 1mM depending upon individual conditions.</p>
Formulation	Lyophilized in HPLC-grade water.
MW	~8.7kDa
Purity	≥95% (SDS-PAGE)
Solubility	Soluble and stable in DMSO and aqueous buffers up to 100 mg/mL. The solid will dissolve with gentle vortexing at the desired concentration.
Source	Native bovine.
UniProt ID	P0CG53



ENZO LIFE SCIENCES,
INC.
Phone: 800.942.0430
[info-
usa@enzolifesciences.com](mailto:info-usa@enzolifesciences.com)

European Sales Office
ENZO LIFE SCIENCES
(ELS) AG
Phone: +41 61 926 8989
[info-
eu@enzolifesciences.com](mailto:info-eu@enzolifesciences.com)

Belgium, The Netherlands
& Luxembourg
Phone: +32 3 466 0420
[info-
be@enzolifesciences.com](mailto:info-be@enzolifesciences.com)

France
Phone: +33 472 440 655
[info-
fr@enzolifesciences.com](mailto:info-fr@enzolifesciences.com)

Germany
Phone: +49 7621 5500 526
[info-
de@enzolifesciences.com](mailto:info-de@enzolifesciences.com)

UK & Ireland
Phone (UK customers):
0845 601 1488
Phone: +44 1392 825900
[info-
uk@enzolifesciences.com](mailto:info-uk@enzolifesciences.com)