Ubiquitin (bovine), (native) (methylated)

Octa-dimethyl-ubiquitin: $(CH_3)_2$-MQIFVK*TLTGK*TITLEVEPSDTIENV K*AK*IQDK*EGIPPDQQRLIFAGK*QLEDGR TLSDYNIQK*ESTLHLVLRLRGG-OH where K* = (ε-dimethyl)lysyl.

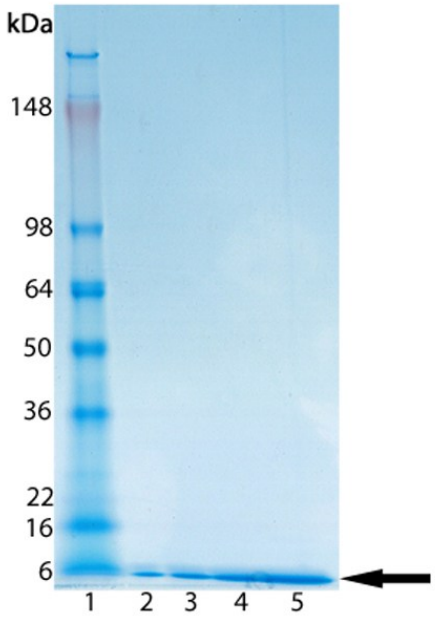
Reductive methylation of the seven internal lysine ε-amino groups as well as the α-amino group to give, in this case, the octa-dimethyl derivative renders ubiquitin unable to form multi-ubiquitin chains via lysine linkages. However, the ability of this methylated ubiquitin to form an active C-terminal 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 monoubiquitinylated products.

Citations: 1 View Online »

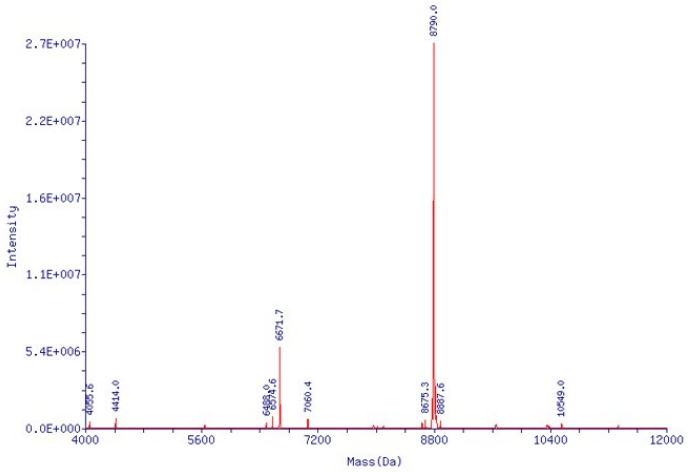
Ordering Information Order Online »

BML-UW8555-0001	1mg

Manuals, SDS & CofA View Online »



SDS-PAGE Analysis: Lane 1: MW Marker, Lane 2: 0.5 µg, Lane 3: 1.0 µg, Lane 4: 2.0 µg, Lane 5: 5.0 µg 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 (± 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 (± 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	Simplifies kinetics for E1-catalyzed active thioester formation. Typical concentrations for non-rate limiting support of *in vitro* conjugation reactions lie in the range 200µM to 1mM depending upon individual conditions.
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

Last modified: May 29, 2024

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