Ubiquitin (human), (fluorescein labeled)

The covalent attachment of ubiquitin to proteins (ubiquitinylation) and their subsequent proteasomal degradation plays a fundamental role in the regulation of cellular function through biological events involving cell cycle, differentiation, immune responses, DNA repair, chromatin structure, and apoptosis.

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BML-UW1240-0100	100µg

Manuals, SDS & CofA View Online »

Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended. Stable for at least 1 year after receipt when stored at -20°C. Reagent is light sensitive; store in the dark or in amber vials. Stable to freeze/thaw but this should be minimized wherever possible.
Handling	Protect from light.
Short Term Storage	-20°C
Long Term Storage	-20°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Application Notes	For use in ubiquitinylation studies.
Formulation	Lyophilized.
MW	~9.5kDa
Purity	≥95% (SDS-PAGE)
Purity Detail	Purified by multi-step chromatography.
Reconstitution	Reconstitute in minimum volume of DMSO (5-10µL) followed by dilution to required concentration with aqueous buffer of choice (e.g. 1mg/mL in PBS).
Source	Produced in *E. coli*.

Technical Info / Product Notes

Fluorescein labelled ubiquitin is a useful reagent for studying ubiquitinylation *in vitro*, where it represents a readily detectable alternative to radio-iodinated ubiquitin. Fluorescein labelled ubiquitin is activated by ubiquitin E1, is a competent substrate for known ubiquitin E2/E3 enzymes (thioester bond formation) and can be conjugated to ubiquitin target proteins (isopeptide bond formation).

This product contains a number of multiply fluorescein-labelled ubiquitin species, with $[\text{fluorescein}]_{2\text{-}4}$ubiquitin being the predominant species.

Typical thioester assay set-up: 2.5µM Fluorescein-Ub (BML-UW1240), 100nM Ub-E1 (BML-UW9410), 2.5µM E2 (e.g. His_6-UbcH5a, BML-UW9050), 1U inorganic pyrophosphatase, 5mM Mg-ATP in 20mM TRIS-HCl, pH 7.5, 1mM DTT. Incubate at 37ºC for 30-60 mins. Analyse by SDS-PAGE followed by fluorescence detection.

UniProt ID

P0CG47 (UBB), P0CG48 (UBC), P62979 (RPS27A), P62987 (UBA52)

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