

# UbiQ

targeting the ubiquitin system

## Cy5-Ub (human sequence, synthetic)

UbiQ code : UbiQ-295

Batch # : B01015020-001

Amount : bulk, lyophilized powder

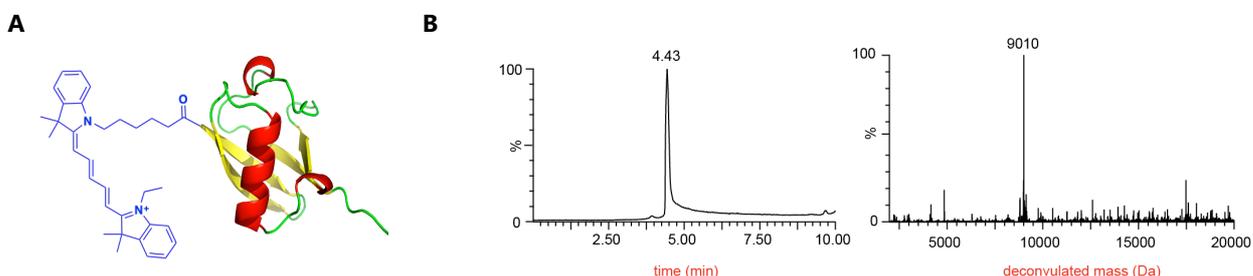
Purity : >90% by HPLC

MW : 9.01 kDa

Storage : upon arrival, powder at  $-20^{\circ}\text{C}$ ; solution at  $-80^{\circ}\text{C}$ . Please store dark and avoid multiple freeze/thaw cycles.

## Productsheet

**Background.** UbiQ-295 is based on ubiquitin (Ub) labeled on the N-terminus with a Cy5 dye ( $\lambda_{\text{exc}} = 625 \text{ nm}$ ;  $\lambda_{\text{emi}} = 680 \text{ nm}$ ).



**Figure 1.** A: UbiQ-295 (B). C: LC-MS analysis. Mobile phase A= 1%  $\text{CH}_3\text{CN}$ , 0.1% formic acid in water and B= 1% water and 0.1% formic acid in  $\text{CH}_3\text{CN}$ . XBridge BEH300 C18  $5\mu\text{m}$  4.6x100mm; column T=  $40^{\circ}\text{C}$ , flow= 0.8 mL/min. Gradient: 30–8%B over 6.5 min.

Note: during SDS-PAGE analysis of (fluorescent) Ub proteins, the appearance of higher mol. weight bands ("smearing") can be observed. This can be caused by (heat-induced) aggregation (Morimoto et al. *Sci Rep* **2018**, 8, article 2711). If possible, avoid heating the samples in Laemmli sample buffer and/or add 4M urea to the SDS-PAGE samples.

### important: sample preparation

- dissolve the powder in as little DMSO as possible (20 - 40 mg/mL)
- add the DMSO stock to milliQ (please note the order of addition) and mix
- buffer the aq. solution as desired. For example:
  - dissolve 50 ug probe in 2.5 uL DMSO (20 mg/mL)
  - option 1: add to 47 uL water followed by addition of 0.5 uL 5M NaOAc pH 4.5 to prepare a 1 mg/mL stock in 50 mM NaOAc pH 4.5; this stock is useful when working with low concentrations of probe
  - option 2: add to 45 uL water followed by addition of 2.5 uL 1M HEPES or Tris to prepare a 1 mg/mL stock in 50 mM HEPES/Tris; this stock is useful when working with high concentrations of probe

**Literature.** (1) El Oualid et al. *Angew Chem Int Ed* **2010**, 49, 10149. (2) de Jong et al. *ChemBioChem* **2012**, 13, 2251.

UbiQ Bio BV

Chamber of Commerce 50023438  
VAT NL822502136B01

Science Park 301  
1098 XH Amsterdam  
The Netherlands

t +31 20 303 1970  
e info@ubiqbio.com  
i www.ubiqbio.com

Rabobank  
IBAN: NL86 RABO 0150658907  
BIC/SWIFT: RABONL2U