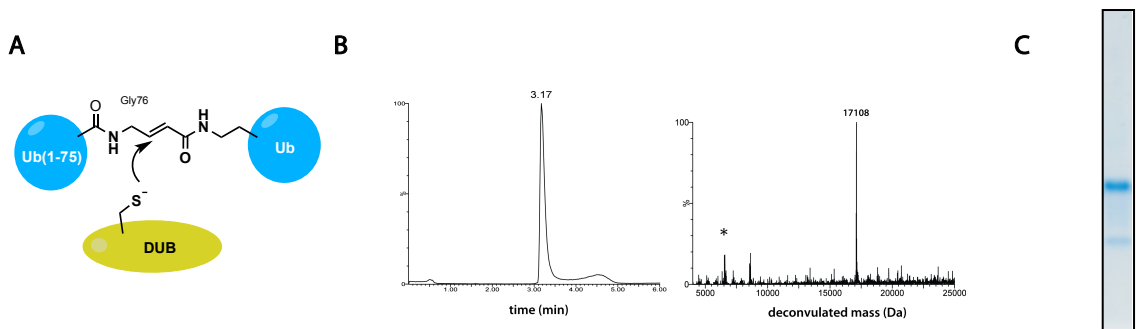


## K6 Di-Ubiquitin VME (human sequence, synthetic)

UbiQ code : UbiQ-081  
Batch # : B15012015-001  
Amount : 50 ug, lyophilized powder  
Purity :  $\pm 90\%^*$   
Mol. Weight : 17.11 kDa  
Storage : upon arrival, powder at  $-20^{\circ}\text{C}$ ; solution at  $-80^{\circ}\text{C}$ . Please avoid multiple freeze/thaw cycles.

## Productsheet

**Background.** UbiQ-081 is an activity-based probe for deubiquitinating enzymes (DUBs) based on K6 linked diUb. Here Lys6 has been replaced by a diaminobutyric acid residue equipped with a VME type warhead - the Dab(VME) type of structure is a DUB reactive mimic of the native isopeptidic linked Lys(Gly) residue (Figure 1). The native distance between the proximal and distal Ub is preserved as much as possible.



**Figure 1.** A: Mode of action UbiQ-081. B: LC-MS analysis. Mobile phase A= 1%  $\text{CH}_3\text{CN}$ , 0.1% formic acid in milliQ and B= 1% milliQ and 0.1% formic acid in  $\text{CH}_3\text{CN}$ . XBridge BEH300 C18  $5\mu\text{m}$   $4.6\times 100\text{mm}$ ; column T=  $40^{\circ}\text{C}$ , flow= 0.8 mL/min. Gradient: 30–95%B over 3.5 min. C: SDS-PAGE analysis. 12% Bolt Bis-Tris Plus gel (Life technologies), MES running buffer. CBB staining.

\* Based on SDS-PAGE analysis, there is some Ub(1-75) present in the sample but this does not interfere with DUB labeling experiments.

### Important: sample preparation

- dissolve the powder in as little DMSO as possible (e.g., 20 mg/mL)
- add this DMSO stock slowly to milliQ (please note the order of addition) and mix
- buffer the aq. stock as desired
- For more details see (open-access) reference 1: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4159580/>

**Literature.** (1) Mulder & El Oualid et al. *ChemBioChem* **2014**, *15*, 946.