UbiQ
targeting the ubiquitin system

**K48 di-Ubiquitin VME** *(human sequence, synthetic)*

| | | |
|---|---|---|
| UbiQ code | : | UbiQ-086 |
| Batch # | : | B01112014-001 |
| Amount | : | 50 ug, lyophilized powder |
| Purity | : | ≥90%* |
| Mol. Weight | : | 17.11 kDa |
| Storage | : | upon arrival, powder at −20°C, solution at −80°C. Please avoid multiple freeze/thaw cycles. |

# Productsheet

**Background.** UbiQ-086 is an activity-based probe for deubiquitinating enzymes (DUBs). It is based on K48 linked diUb where Lys48 has been replaced by a diaminobutyric acid residue equipped with a VME type warhead - the Dab(VME) type of structure is a DUB reactive mimic of the native isopeptidic linked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). UbiQ-086 can be used for activity profiling experiments and structural studies. Please note the native distance between the proximal and distal Ub is preserved as much as possible in UbiQ-086.

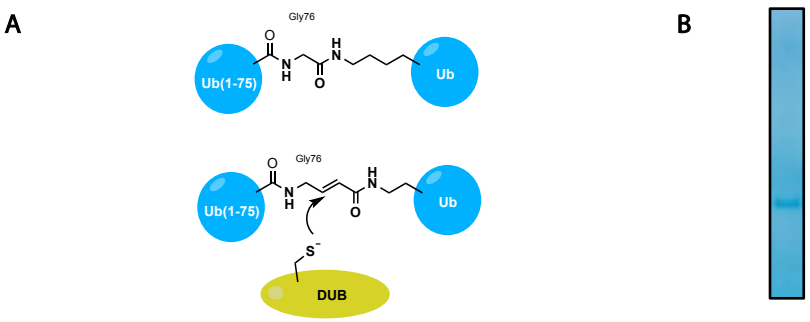


**Figure 1.** Mode of action diUb VME labeling of DUBs. Top= native diUb, bottom= diUb VME probe. B: SDS-PAGE analysis. 12% Bolt Bis-Tris Plus gel (Lifetechnologies) in MES buffer at 190V. Coomassie Brilliant Blue G-250 staining.

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

## 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 by vortexing
- 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.

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