

## DUB activity-based probe mix - *Biotin tagged*

UbiQ code : UbiQ-L05

Amount : 3 x 50 µg lyophilized powder

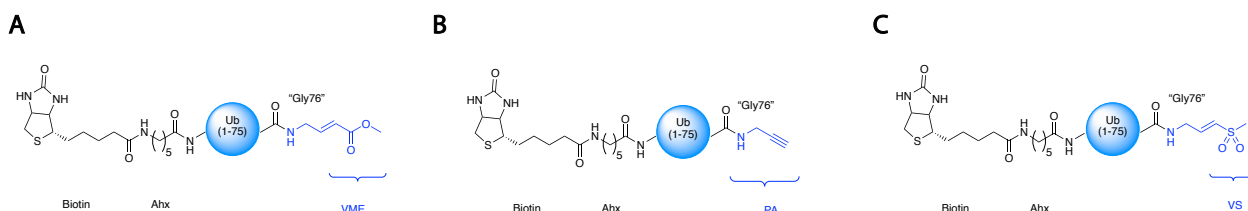
Purity : ≥95%

Storage : upon arrival, powder at –20°C, solution at –80°C. Please avoid multiple freeze/thaw cycles.

## Productsheet

**Background.** UbiQ-L05 is a panel of three activity-based probes for deubiquitinating enzymes (DUBs):

- UbiQ-054= Biotin-Ahx-Ub-VME, batch B26112012-001, MW: 8.94 kDa
- UbiQ-076= Biotin-Ahx-Ub-PA, batch B01082013-001, MW: 8.89 kDa
- UbiQ-188= Biotin-Ahx-Ub-VS, batch B01102016-001, MW: 8.96 kDa



**Figure 1.** A: probe UbiQ-054. B: probe UbiQ-076. C: probe UbiQ-188 (contains a Met1-to-norleucine mutation).

The probes are based on ubiquitin and labeled on the N-terminus with a biotin tag. A 6-aminohexanoic acid (Ahx) linker is used to create extra space between the biotin and Ub N-terminus for efficient access of biotin binding entities.

By mixing the three probes, a highly DUB reactive probe mix is obtained that contains the combined reactivity of the PA (propargyl amide), VME (vinyl methyl ester) and VS (vinyl sulfone) electrophiles. As a result the labelling efficiency of the mix is higher than using each probe separately.

### 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).
- next, buffer as desired.

**Literature.** (1) El Oualid et al. *Angew Chem Int Ed* **2010**, 49, 10149. (2) Ekkebus et al. *J Am Chem Soc* **2013**, 135, 2867. (2) Sommer et al. *Bioorg Med Chem* **2013**, 21, 2511. (3) de Jong et al. *ChemBioChem* **2012**, 13, 2251. (4) Altun et al. *Chem Biol* **2011**, 18, 1401. (5) Nair et al. *ACS Chem Biol* **2021**, 16, 1615.