

UbiQ

targeting the ubiquitin system

SUMO1-Dha (human sequence, C52S, synthetic)

UbiQ code : UbiQ-116

Batch # : B01072015-001

Amount : 50 ug, lyophilized powder

Purity : $\geq 95\%$

Mol. Weight : 11.1 kDa

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

Productsheet

Background. UbiQ-116 (SUMO1-Dha) is an activity-based probe for SUMO E1, E2 and (HECT/RBR) E3 ligases. It is based on the SUMO1 sequence in which the C-terminal Gly has been replaced by a dehydroalanine residue and Cys52 by a Ser residue. UbiQ-116 is processed in a native manner by SUMO E1, E2 and E3 enzymes and during this process it forms an electrophilic intermediate that can react with the active site Cys residue, thereby creating a covalent bond (Figure 1).

A

MSDQEAKPSTEDLGDKKEGEYIKLKVIGQDSSEIHFKVKMTTHLKKLKEYSQRQGVPMNSLRFLFEGQRIADNHTPKELGMEEEDVIEVYQEQTG-Dha

B

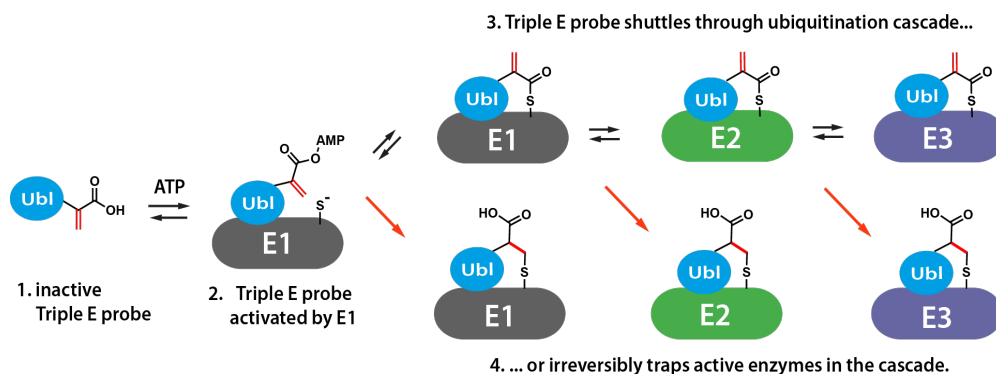


Figure 1. A: Sequence UbiQ-116. B: mode of action.

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 full details please see open-access reference 1: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5108872/>

Literature. (1) Mulder et al. *Nat Chem Biol* 2016, 12, 523.