

Di-ubiquitin explorer panel *(human sequence, synthetic and recombinant)*

UbiQ code : UbiQ-L01
Amount : 8 x 10 µg, 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-L01 is a panel of the following eight native linked di-ubiquitin (diUb) conjugates (10 ug each):

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| • K6-linked diUb (UbiQ-013, batch B01012018-001) | • K33-linked diUb (UbiQ-017, batch B01012018-001) |
| • K11-linked diUb (UbiQ-014, batch B01012018-001) | • K48-linked diUb (UbiQ-033, batch B01115022-001) |
| • K27-linked diUb (UbiQ-015, batch B01012018-001) | • K63-linked diUb (UbiQ-034, batch B01115022-001) |
| • K29-linked diUb (UbiQ-016, batch B01012018-001) | • Linear diUb (UbiQ-070, batch B01012013-001) |

The isopeptide linked diUb conjugates have been prepared by chemical ligation, the linear (M1-linked) diUb conjugate by recombinant expression. UbiQ-L01 can be used to:

- investigate linkage specificity of proteases that cleave the (iso)peptide linkage between two ubiquitin proteins.
- investigate mechanism of binding and recognition of proteins that contain ubiquitin-associated domains or ubiquitin-interacting motifs (UIMs).

important - sample preparation.

- add 0.5 µL DMSO to the 10 µg diUb sample and dissolve by a quick spin in the (ultra)centrifuge.
- add the DMSO stock (20 mg/mL = 1169 µM) to water (please note order of addition)
⇒ for example, diluting into 19.5 µL water will afford an aqueous stock of 29 µM (0.5 mg/mL, 2.5 vol% DMSO)
- next buffer this aq. stock as desired

Note: we and others have observed the appearance of higher mol. weight bands ("smearing") during SDS-PAGE analysis of (di)Ub conjugates, believed to be caused by (heat-induced) aggregation (Morimoto et al. *Sci Rep* **2018**, 8, article 2711). If possible, avoid heating or heat the samples briefly at 70°C in Laemmli sample buffer.

Literature. (1) El Oualid et al. *Angew Chem Int Ed* **2010**, 49, 10149. (2) Faesen et al. *Chemistry & Biology* **2011**, 18, 1550.