

UbiQ

targeting the ubiquitin system

5-carboxyRh110-SUMO2 (human sequence, C48S, synthetic)

UbiQ code : UbiQ-134

Batch # : B01102015-001

Amount : 50 ug, lyophilized powder

Purity : $\geq 95\%$

Mol. Weight : 10.94 kDa

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

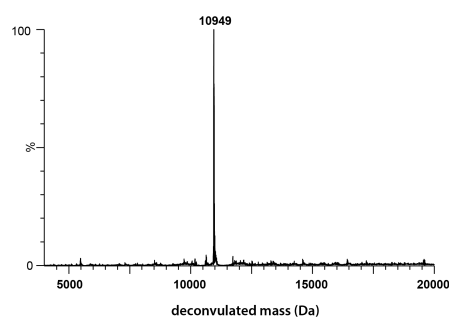
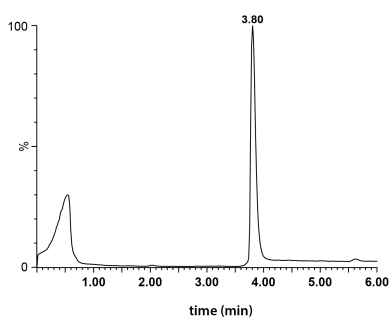
Productsheet

Background. UbiQ-134 is based on the human SUMO2 sequence (C48S). The N-terminus is functionalized with a 5-carboxyrhodamine110 dye ($\lambda_{\text{ex}} = 480 \text{ nm}$; $\lambda_{\text{em}} = 520 \text{ nm}$) allowing for a sensitive and fast (in-gel fluorescence) detection of SUMO2 processing.

A

cRh110-MADEKPKEGVKTEENNDHINLKVAGQDGSVVQFKIKRHTPLSKLMKAYSERQGLSMRQIRFRFDGQPINETDTPAQLEMEDEDTIDVFQQQTGG

B



C



Figure 1. A: sequence. B: LC-MS analysis. Mobile phase A= 1% CH_3CN , 0.1% formic acid in water B= 1% water and 0.1% formic acid in CH_3CN . XBridge BEH300 C18 $5\mu\text{m}$ $4.6 \times 100\text{mm}$; flow rate= 0.8 mL/min, column T= 40°C . Gradient: 30-60% B over 3.5 min. C: SDS-PAGE analysis. Fluorescence scan, 12% Bolt Bis-Tris Plus gel (Life technologies) and MES running buffer.

important: sample preparation

- dissolve the powder in as little DMSO as possible (e.g. 20 – 40 mg/mL)
- add this DMSO stock slowly to milliQ (please note the order of addition)
- to ensure proper folding, we advise to buffer the aqueous DMSO stock first to 50 mM sodium acetate pH 4.5
- next, buffer as desired

Literature. (1) Mulder et al. *Angew Chem Int Ed* **2018**, *57*, 8958. (2) Albrow et al. *Chem Biol* **2011**, *18*, 722. (3) Mendes et al. *Biochim Biophys Acta - Mol Cell Res* **2016**, *1863*, 139.