Quantification and visualization of glutathione S-transferase omega 1 in cells using inductively coupled plasma mass spectrometry (ICP-MS) and fluorescence microscopy

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Fig. S1. HPLC/UV chromatogram of DBCO-ChAcA
Selectivity of DBCO-ChAcA towards GSTO1 in-vitro

The selectivity of DBCO-ChAcA was measured using papain and GSH as the examples of cysteine containing molecules. As the same conditions used in the case of GSTO1, the mass spectrum of papain (0.1 μM) is showed in Fig S3a, and that of DBCO-ChAcA (10 μM, 1h) treated papain in Fig S3a’, indicating that papain was not labeled. In the case of GSH (Fig. S4), no reaction was observed within 3 h at room temperature, but it could be labeled with DBCO-ChAcA at 37 °C until 8 h, suggesting that GSH was labeled by DBCO-ChAcA under the conditions of cell incubation.
Fig. S3. MALDI-TOF-MS of papain (a) and DBCO-ChAcA treated papain (a').
Fig. S4. Reaction between GSH and DBCO-ChAcA. HPLC-UV chromatogram at room temperature within 3 h (a) and at 37 °C for 8 h (a’).