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# Using LC-MS/MS for identification and quantification of host contaminant protein during phage production

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Typical recombinant protein production often relies on standard ELISA assays for controlling product quality and safety. Phages however, require specific production hosts. Regulatory institutions demand phages to be controlled for presence of host-cell derived impurities, e.g. host-cell proteins (HCPs), endo- and exotoxins, as well as prophages.
LC-MS/MS-based HCP testing enables highly sensitive and specific HCP detection and identification independent of the host strain or organism. Data for *E.coli* phage T7 show, that LC-MS/MS data facilitate further purification development and risk assessment for therapeutic phages. In combination with a QconCAT-based internal isotop-labelled reference standard EcoCAT, total HCP levels can be quantified like with ELISA measurement.

## Reference #1

## Reference #2

## Reference #3

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