

Supplementary information

Online multimethod platform for comprehensive characterization of monoclonal antibodies in cell cultures and formulations from a single injection of crude sample - Intact protein workflow

Raya Sadighi^{1,2}, Vera de Kleijne¹, Sam Wouters³, Karin Lubbers⁴, Govert W. Somsen^{1,2}, Andrea F.G. Gargano^{2,5}, Rob Haselberg^{1,2}

1. Division of BioAnalytical Chemistry, Department of Chemistry and Pharmaceutical Sciences, Amsterdam Institute of Molecular and Life Sciences, Vrije Universiteit Amsterdam, De Boelelaan 1108, 1081 HZ Amsterdam, The Netherlands
2. Centre for Analytical Sciences Amsterdam, The Netherlands
3. Agilent Technologies, R&D and Marketing GmbH, Hewlett-Packard-Strasse 8, 76337 Waldbronn, Germany
4. Polpharma Biologics Utrecht B.V., Yalelaan 46, 3584 CM Utrecht, The Netherlands
5. Analytical Chemistry Group, van't Hoff Institute for Molecular Sciences, University of Amsterdam, PO Box 94720, 1090 GE Amsterdam, The Netherlands

Table of Contents

Figure S1	Page S2
Figure S2	Page S2
Figure S3	Page S3
Figure S4	Page S3
Figure S5	Page S4
Figure S6	Page S4

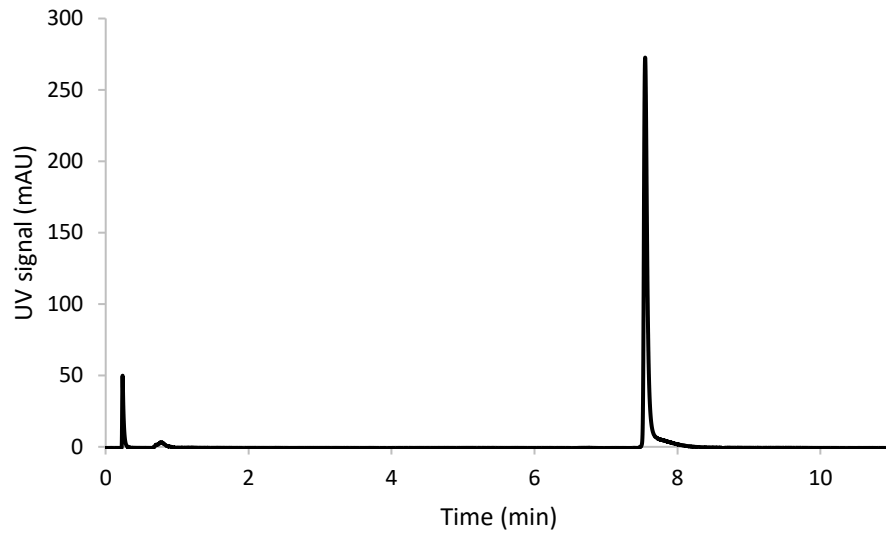


Figure S1. RPLC-UV analysis of mAb1 using 500 mM AA as injection solvent.

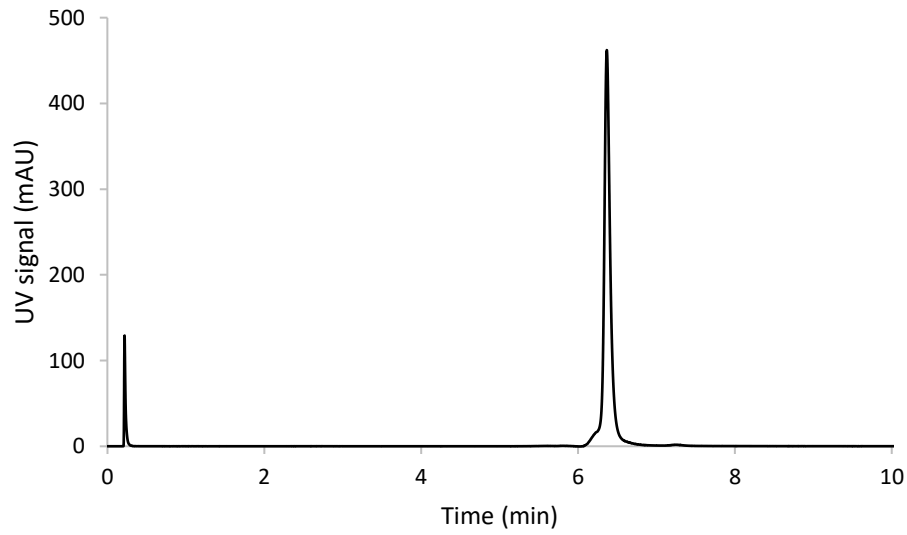


Figure S2. SEC-UV analysis of mAb1 using 500 mM AA as injection solvent.

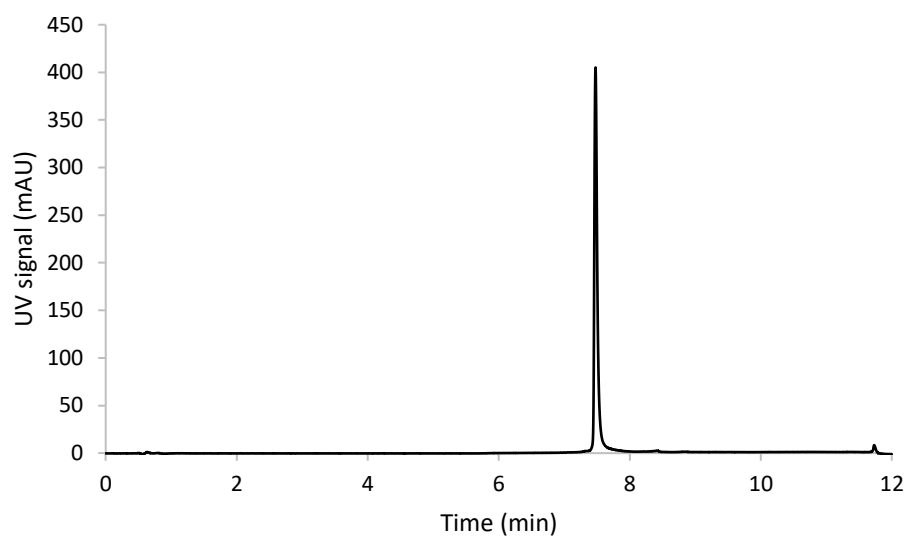


Figure S3. RPLC-UV analysis of mAb1 using 10 mM FA as injection solvent.

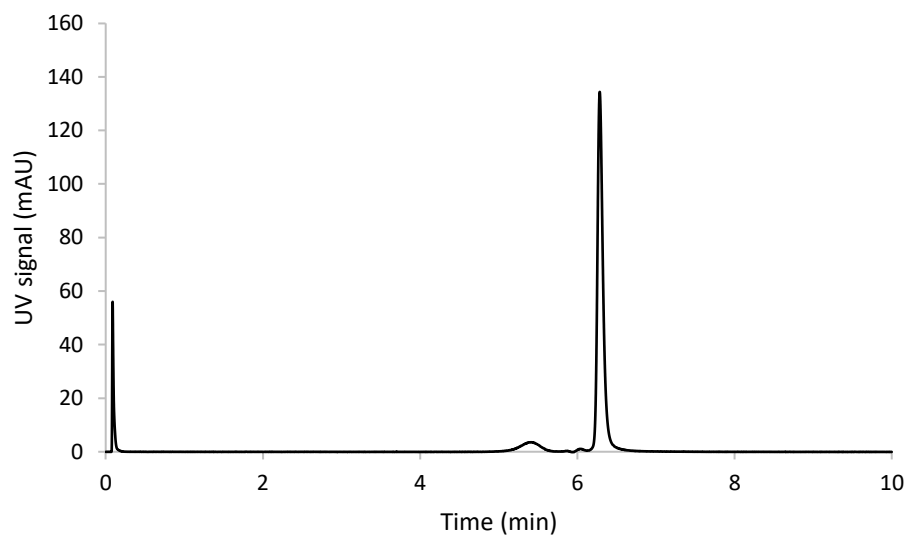


Figure S4. SEC-UV analysis of mAb1 using 10 mM FA as injection solvent.

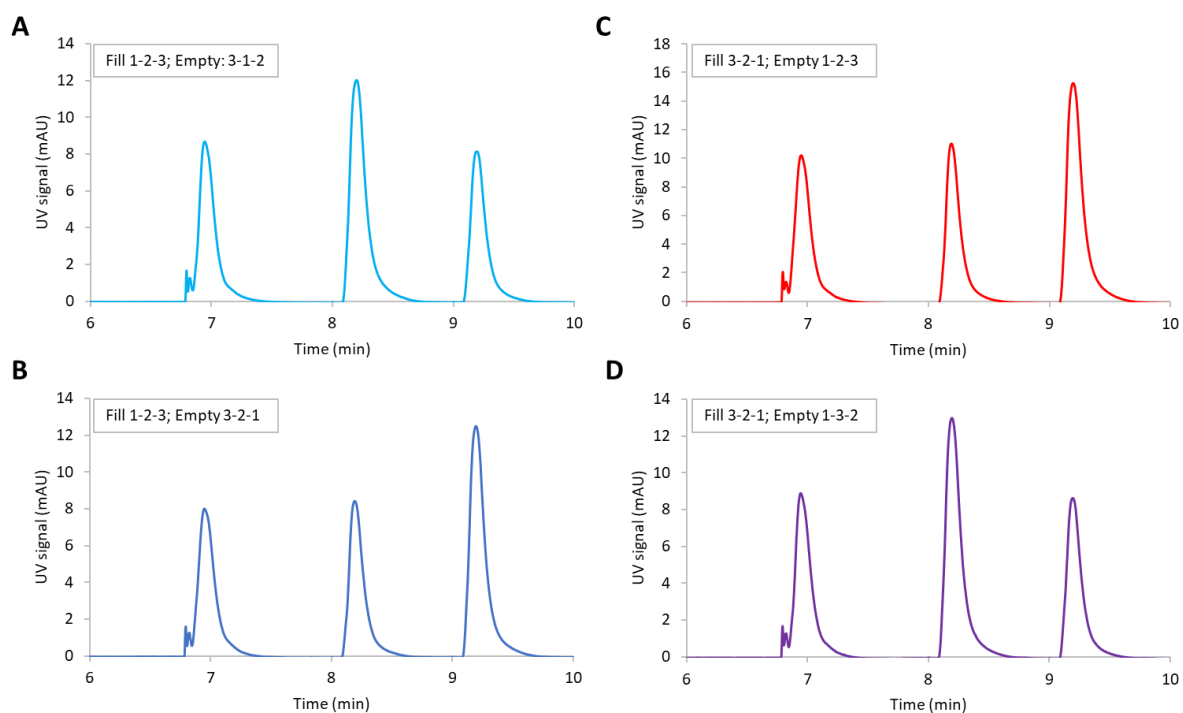


Figure S5. Loop filling and emptying clockwise and anticlockwise on injection of a solution of mAb without chromatography in the first and the second dimension. Emptying profiles when the order of filling/emptying the loops with mAb1 was (A) 1-2-3/3-1-2, (B) 1-2-3/3-2-1, (C) 3-2-1/1-2-3, and (D) 3-2-1/1-3-2.

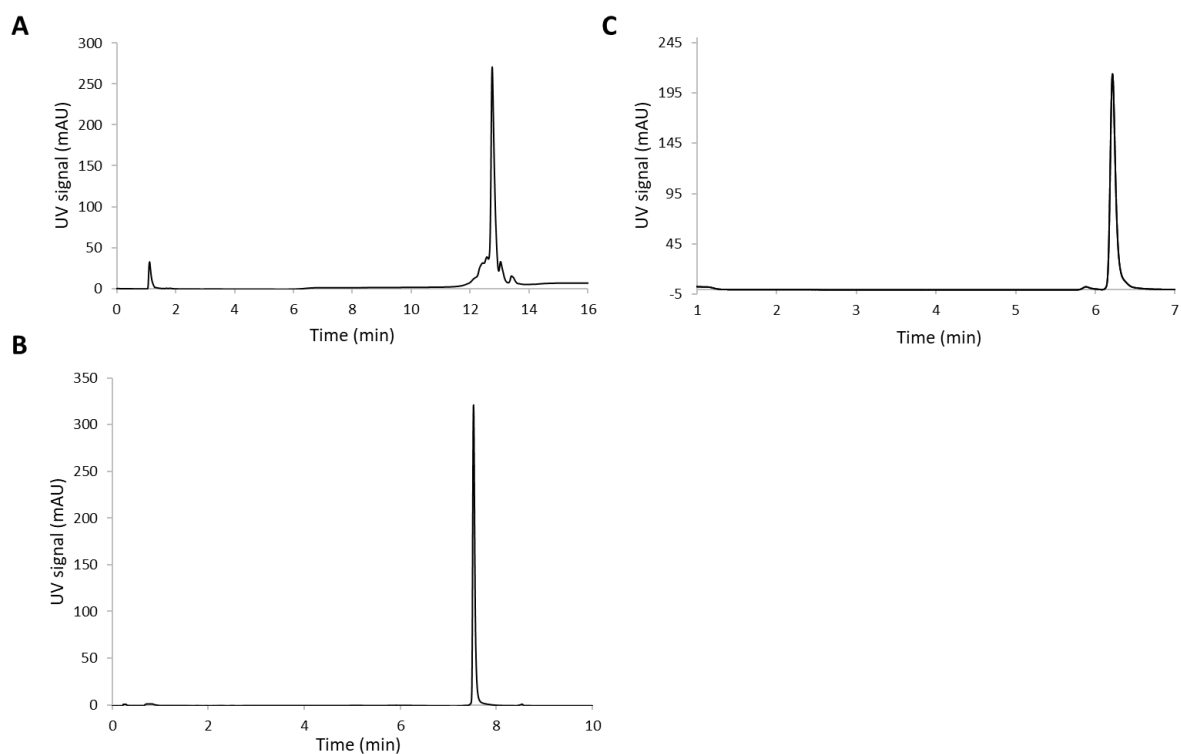


Figure S6. Analysis of mAb1 by conventional offline combinations of ProtA with (A) SCX-UV, (B) RPLC-UV, and (C) SEC-UV.