

Disulfide Bond Characterization of Endogenous IgG3 Monoclonal Antibodies Using LC-MS: An Investigation of IgG3 Disulfide-mediated Isoforms.

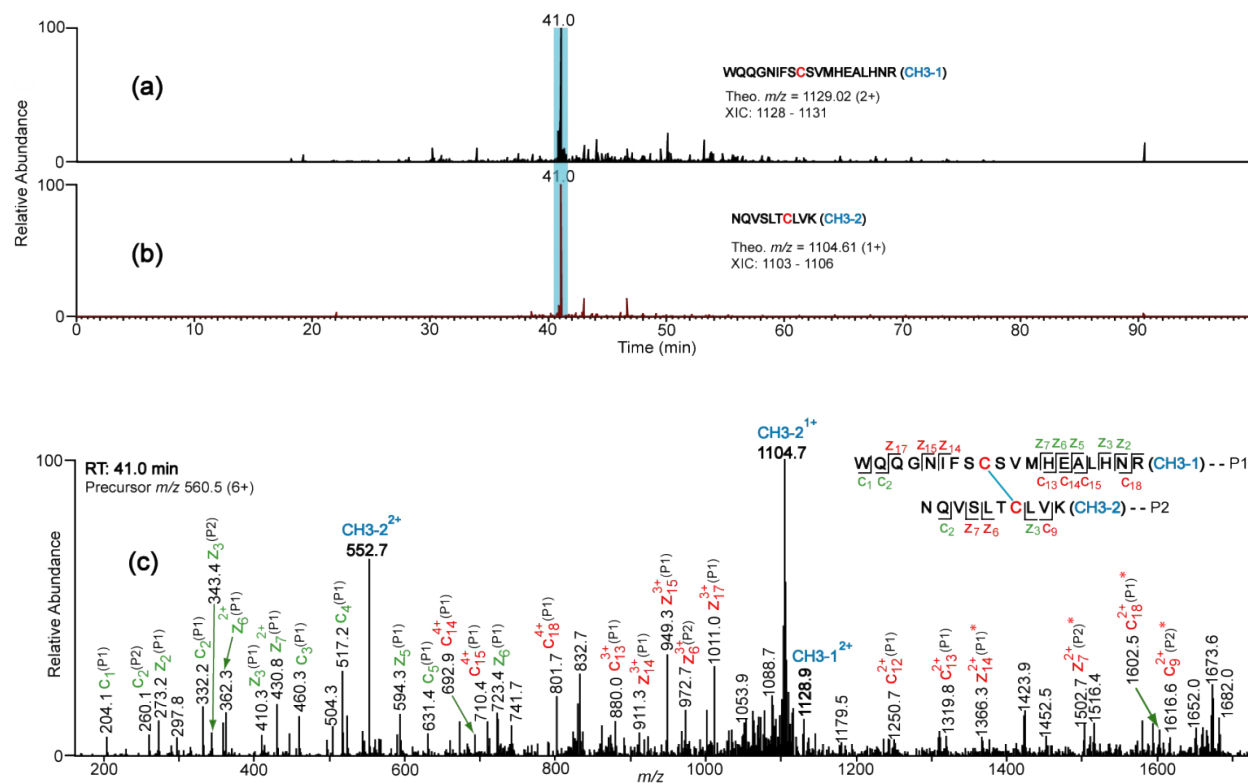
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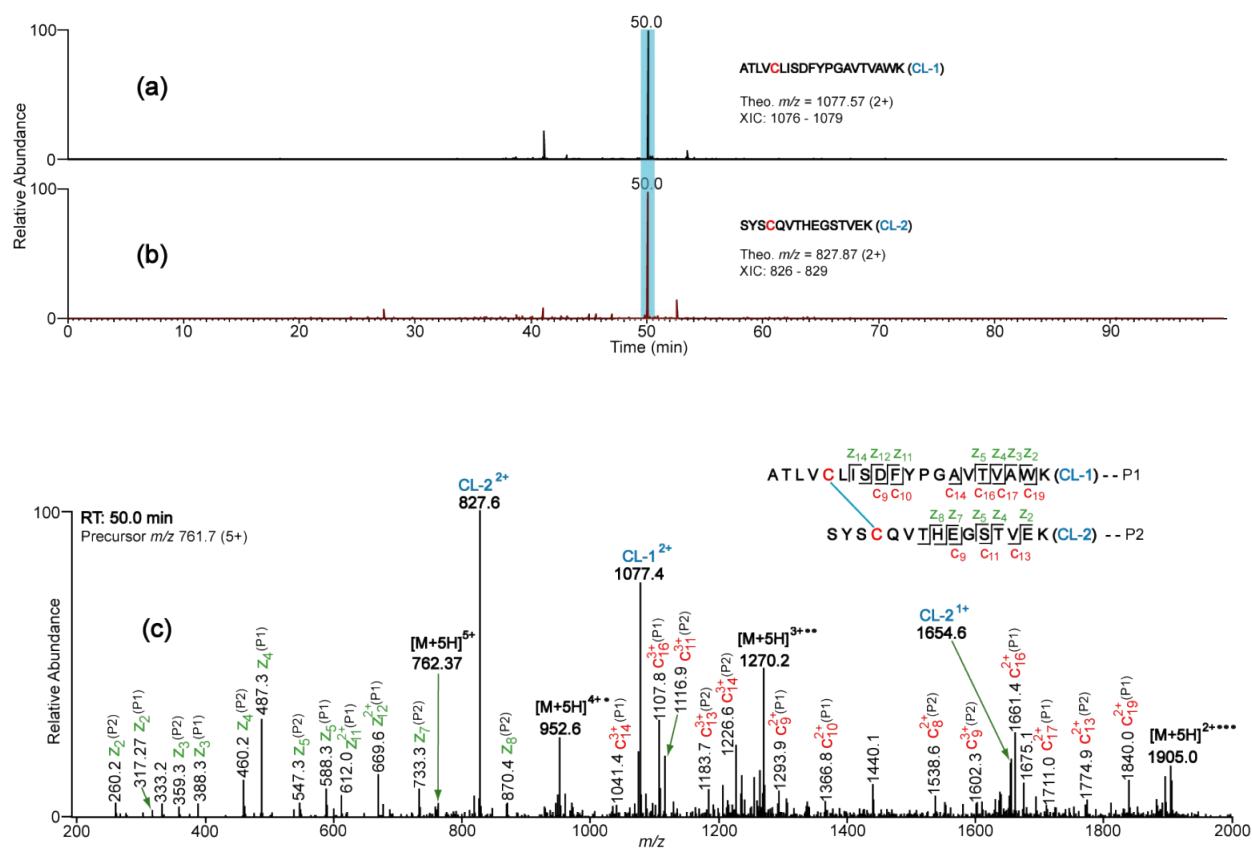
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Supplementary Material

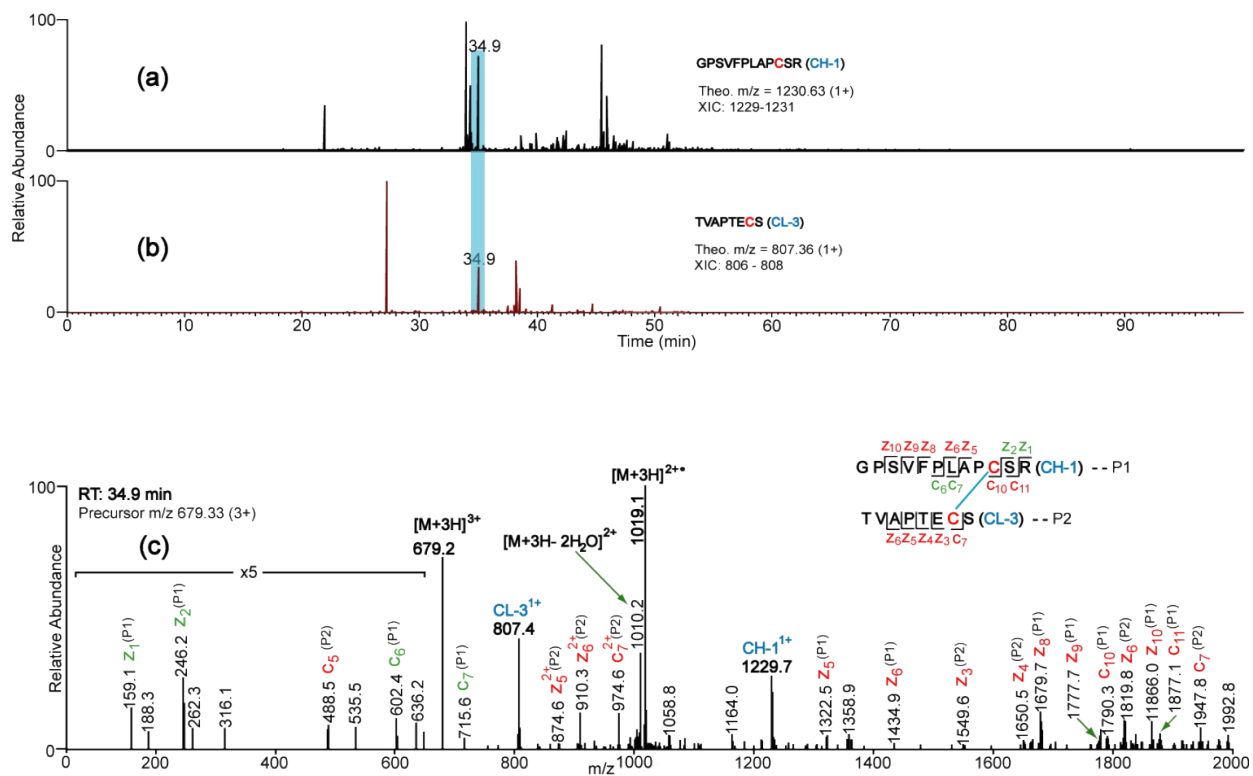
Supplementary Figures 1-6: Data supporting the assignment of disulfide bonds in the constant region of IgG3 monoclonal antibodies. Data from the Fitzgerald antibody is shown. The Sigma antibody produced the same results.



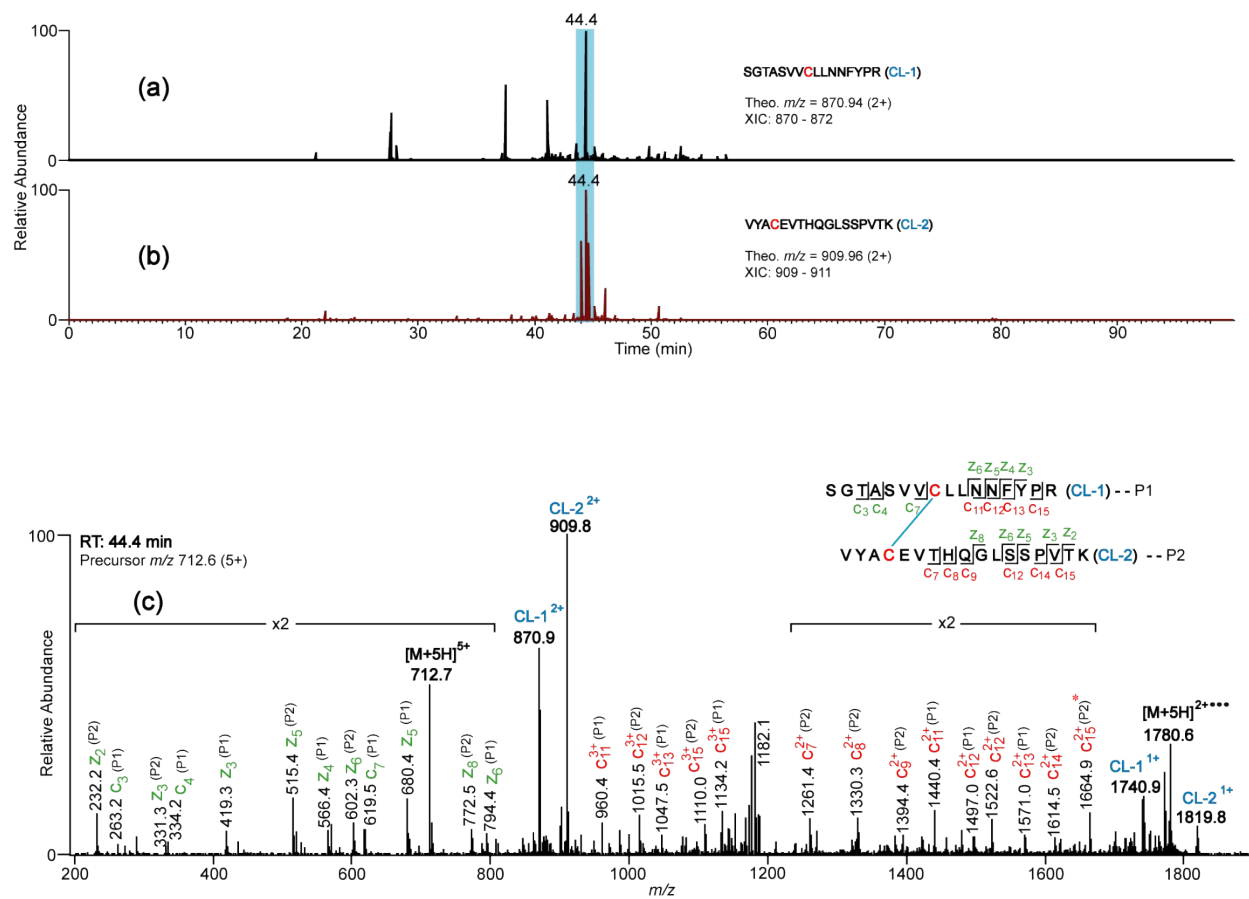
Supplementary Figure 1. XIC's (a and b) and ETD spectrum (c) supporting the assignment of the CH3 domain disulfide bond. Asterisks indicate z and c ± 1 ions



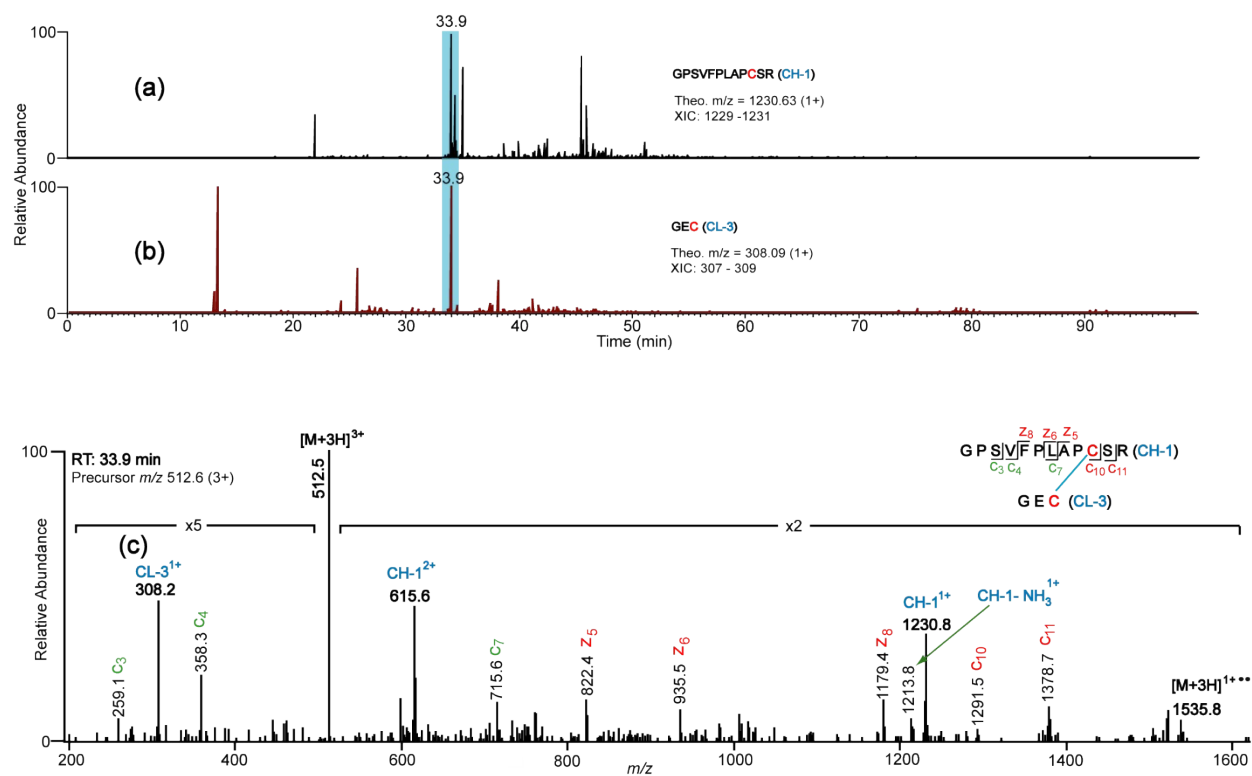
Supplementary Figure 2. XIC's (a and b) and ETD spectrum (c) supporting the assignment of the lambda constant light chain disulfide bond



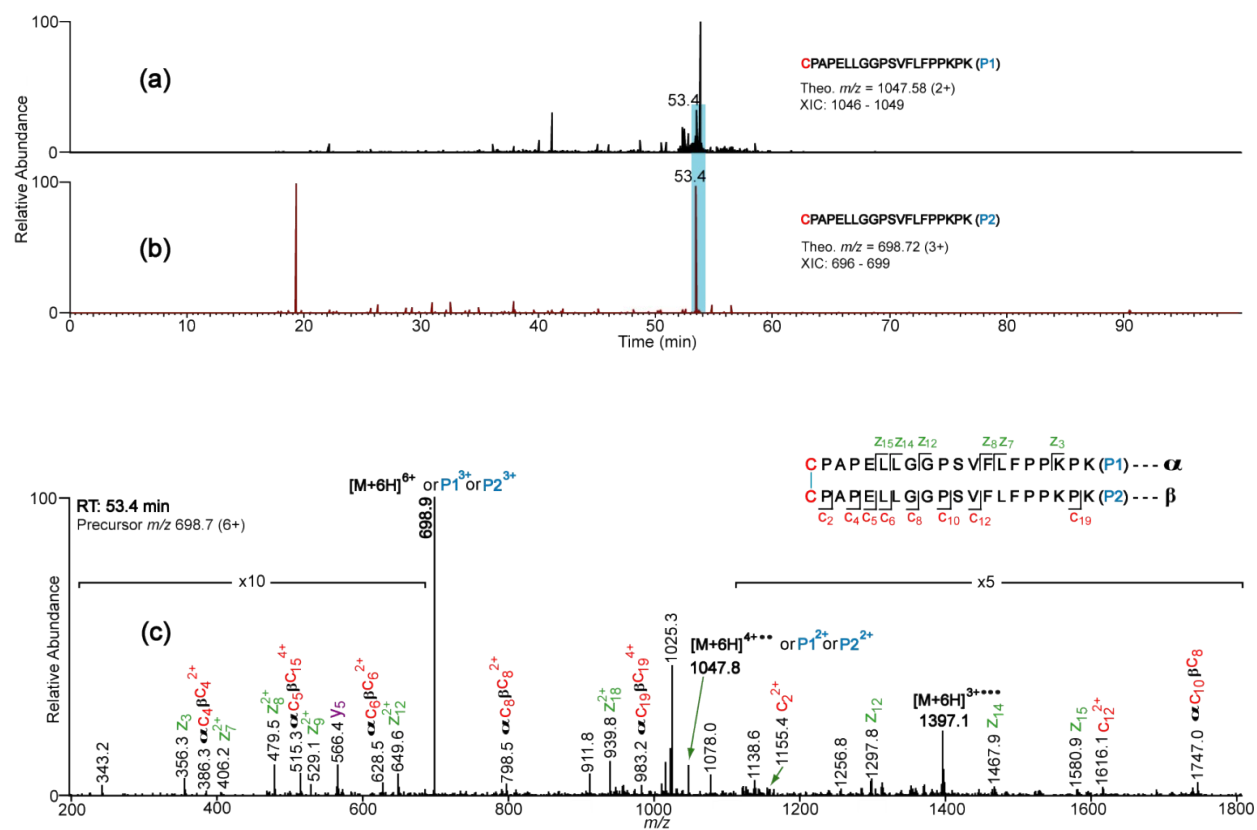
Supplementary Figure 3. XIC's (a and b) and ETD spectrum (c) supporting the assignment of the disulfide bond between the heavy chain and the lambda light chain



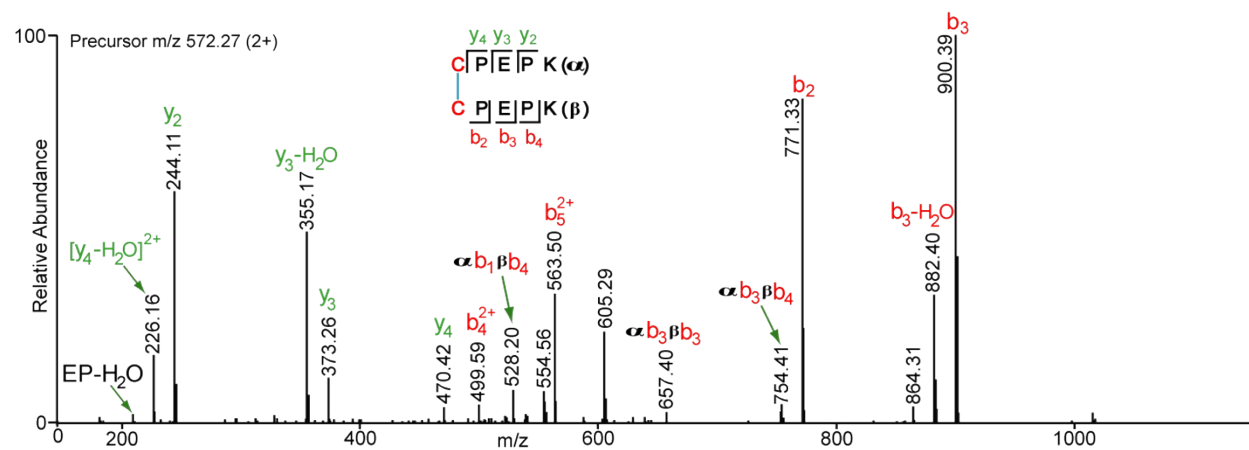
Supplementary Figure 4. XIC's (a and b) and ETD spectrum (c) supporting the assignment of the kappa constant light chain disulfide bond



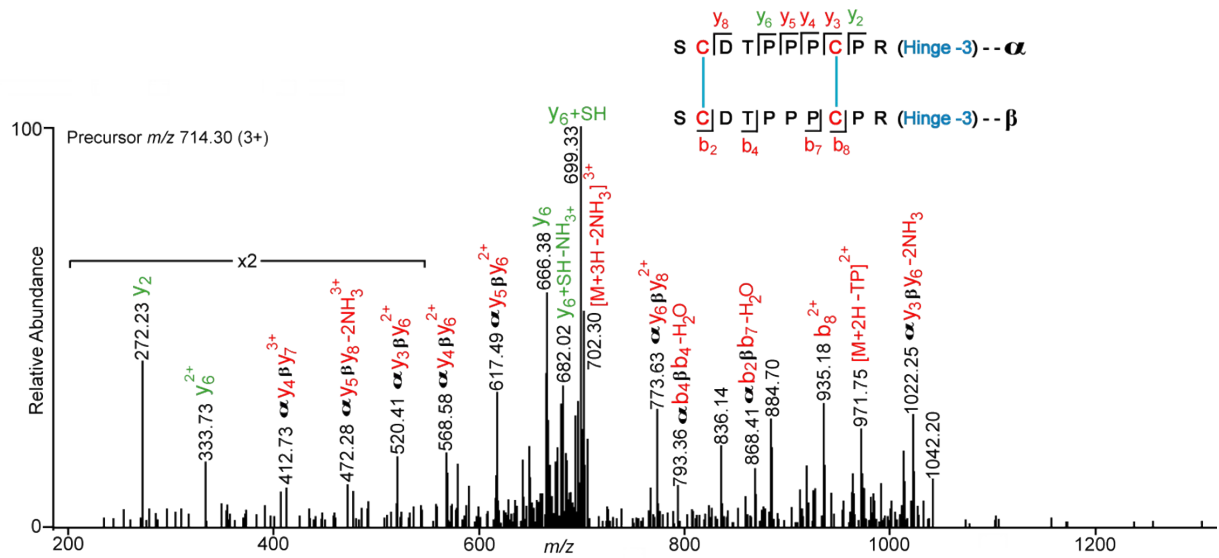
Supplementary Figure 5. XIC's (a and b) and ETD spectrum (c) supporting the assignment of the disulfide bond between the heavy chain and the kappa light chain



Supplementary Figure 6. XIC's (a and b) and ETD spectrum (c) supporting the assignment of the Hinge-4 disulfide bond which links two identical tryptic peptides



Supplementary Figure 7. CID spectrum supporting the assignment of the Hinge-2 disulfide bond



Supplementary Figure 8. CID spectrum supporting the assignment of the Hinge-3 disulfide bond

Supplementary Table 1. Summary of Mass Assignments of Disulfide Bonds in Fitzgerald and Sigma IgG3 mAbs Using High Resolution MS Data.

Tryptic dipeptides	Position	Theor. m/z	CS	Fitzgerald IgG3		Sigma IgG3	
				Exptl. m/z	Mass Error (ppm)	Exptl. m/z	Mass Error (ppm)
DYFPEPVTVSWNSGAL	CH1	1581.9839	5+	1581.9953	5	1581.9974	9
TSGVHTFPAVLQSSGL		1318.4878	6+	1318.4954	6	1318.4954	5
YSLSSVVTVPSSSLGT		1130.2763	7+	1130.2854	8	1130.2886	11
QTYTCNVNHNKPSNTK		989.1177	8+	989.1251	7	989.1251	8
STSGGTAALGCLVK		879.3276	9+	879.3309	4	879.3309	8
CPEPK	Hinge-2	572.2623	2+	572.2564	5	572.2602	4
CPEPK							
SCDTPPPCPR	Hinge-3	1070.4394	2+	1070.4419	2	1070.4434	4
SCDTPPPCPR		713.9620	3+	713.9645	4	713.9641	< 1
SCDTPPPCPR		535.7234	4+	535.7264	6	535.7250	3