

INFORMATION FOR SUPPLEMENTAL DATA

To demonstrate that the Asn→Ser substitution is not protein molecule specific, we analyzed two proteins: Antibody B and Fusion Protein C. The results are summarized in Supplemental Table I and Supplemental Figures 1 and 2, the latter of which are MS/MS spectra showing Ser substitution at Asn position for a unique peptide in each protein.

Supplemental Table I. Asn-containing peptides with Asn→Ser substitution detected in Antibody B and Fusion Protein C.

	Endo-Lys-C peptide (Residues)	Number of Asn Residues in the peptide	Amount of Asn→Ser^a (%)
Antibody B (Light Chain)	127-145	2	0.6
	150-169	2	0.7
	208-214	1	0.3
Antibody B (Heavy Chain)	66-76	1	0.4
	151-199	1	0.4
	200-213	2	0.9
	289-317	2	0.7
	361-370	1	0.4
	371-392	3	1.0
	415-439	2	0.7
Fusion Protein C	81-94	2	0.4
	95-123	2	0.3
	167-176	1	0.2
	177-198	3	0.6
	221-245	2	0.4
	368-392	1	0.2
	408-428	2	0.3
	500-537	2	0.4
	560-587	1	0.3

^a the amount of substitution was estimated from peak heights of the combined mass spectra from the extracted ion chromatograms for the predicted peptide and for the corresponding peptide containing the Asn→Ser mutant.