

**Table S1.** Summary of individual peptide sequences containing carbamylated lysine (indicated by “k” in red lettering) in the heavy chain of IgG in individual patients. Refer to table 1 in main text for ID demographics. N/A indicates no modified peptide sequences detected for that patient sample.

Subject ID	Peptide Sequence Recognised	No. of times detected	Modification detected	Amino acid number	Region of Modification
1	THTcPPcPAPELLGGPSVFLPP <b>k</b> PK	5	C4(Carbamidomethyl); C7(Carbamidomethyl); K24(Carbamyl)	Lys246	CH2
	VVSVLTVLHQDWLNG <b>k</b> EYK	7	K16(Carbamyl)	Lys317	CH2
	ALPAPIE <b>k</b> TISK	11	K8(Carbamyl)	Lys334	CH2
2	FNWYVDGVEVHNA <b>k</b> TKPR	15	K14(Carbamyl)	Lys288	CH2
3	N/A	N/A	N/A	N/A	N/A
4	NQVSLTcLV <b>k</b> GFYPSDIAVEWESNG QPENNYK	1	C7(Carbamidomethyl); K10(Carbamyl)	Lys370	CH3
5	ScD <b>k</b> THTcPPcPAPELLGGPSVFLFP PKPK	4	C2(Carbamidomethyl); K4(Carbamyl); C8(Carbamidomethyl); C11(Carbamidomethyl)	Lys222	CH2
6	THTcPPcPAPELLGGPSVFLPPK <b>P</b> DTLmISR	3	C4(Carbamidomethyl); C7(Carbamidomethyl); K26(Carbamyl); M30(Oxidation)	Lys248	CH2
	FNWYVDGVEVHNA <b>k</b> TKPR	5	K14(Carbamyl)	Lys288	CH2
	VVSVLTVLHQDWLNG <b>k</b> EYK	3	K16(Carbamyl)	Lys317	CH2
7	VVSVLTVLHQDWLNG <b>k</b> EYK	2	K16(Carbamyl)	Lys317	CH2
	cKVSN <b>k</b> ALPAPIEK	1	C1(Carbamidomethyl); K6(Carbamyl)	Lys326	CH2

8	ScD <b>k</b> THTcPPcPAPELLGGPSVFLFP PKPK  GFYPSDIAVEWESNGQPENNY <b>k</b> TT PPVLDSDGSFFLYSK	3  4	C2(Carbamidomethyl); K4(Carbamyl); C8(Carbamidomethyl); C11(Carbamidomethyl)  K22(Carbamyl)	Lys222  Lys392	CH2  CH3
9	THTcPPcPAPELLGGPSVFLFP <b>k</b> PK	1	C4(Carbamidomethyl); C7(Carbamidomethyl); K24(Carbamyl)	Lys246	CH2
10	VVSVLTVLHQDWLNG <b>k</b> EYK	1	K16(Carbamyl)	Lys317	CH2
11	N/A	N/A	N/A	N/A	N/A
12	N/A	N/A	N/A	N/A	N/A
13	FNWYVDGVEVHNA <b>k</b> TKPR VVSVLTVLHQDWLNG <b>k</b> EYK VSN <b>k</b> ALPAPIEK GFYPSDIAVEWESNGQPENNY <b>k</b> TT PPVLDSDGSFFLYSK	1  4  1  4	K14(Carbamyl)  K16(Carbamyl)  K4(Carbamyl)  K22(Carbamyl)	Lys288  Lys317  Lys326  Lys392	CH2  CH2  CH2  CH3
14	N/A	N/A	N/A	N/A	N/A
15	VVSVLTVLHQDWLNG <b>k</b> EYK	1	K16(Carbamyl)	Lys317	CH2
16	VVSVLTVLHQDWLNG <b>k</b> EYK NQVSLTcLV <b>k</b> GFYPSDIAVEWESNG QPENNYK GFYPSDIAVEWESNGQPENNY <b>k</b> TT PPVLDSDGSFFLYSK	1  2  4	K16(Carbamyl)  C7(Carbamidomethyl); K10(Carbamyl)  K22(Carbamyl)	Lys317  Lys370  Lys392	CH2  CH3  CH3
17	ScD <b>k</b> THTcPPcPAPELLGGPSVFLFP PKPK  VSN <b>k</b> ALPAPIEK	10  1	C2(Carbamidomethyl); K4(Carbamyl); C8(Carbamidomethyl); C11(Carbamidomethyl)  K4(Carbamyl)	Lys222  Lys326	CH2  CH2

	NQVSLTcLV <b>K</b> GFYPSDIAVEWESNG QPENNYK	2	C7(Carbamidomethyl); K10(Carbamyl)	Lys370	CH3
18	ScD <b>K</b> THTcPPcPAPELLGGPSVFLFP PKPK	9	C2(Carbamidomethyl); K4(Carbamyl); C8(Carbamidomethyl); C11(Carbamidomethyl)	Lys222	CH2
19	ScD <b>K</b> THTcPPcPAPELLGGPSVFLFP PKPK	3	C2(Carbamidomethyl); K4(Carbamyl); C8(Carbamidomethyl); C11(Carbamidomethyl)	Lys222	CH2
	VSN <b>K</b> ALPAPIEK	1	K4(Carbamyl)	Lys326	CH2
20	ScD <b>K</b> THTcPPcPAPELLGGPSVFLFP PKPK	4	C2(Carbamidomethyl); K4(Carbamyl); C8(Carbamidomethyl); C11(Carbamidomethyl)	Lys222	CH2
21	N/A	N/A	N/A	N/A	N/A
22	VSN <b>K</b> ALPAPIEK VVSVLTVLHQDWLNG <b>K</b> EYK	1 1	K4(Carbamyl) K16(Carbamyl)	Lys326 Lys317	CH2 CH2