

Supplementary Material

Identification of Species-Specific Peptide Markers in Highly Processed Meat Products Using De Novo Sequencing

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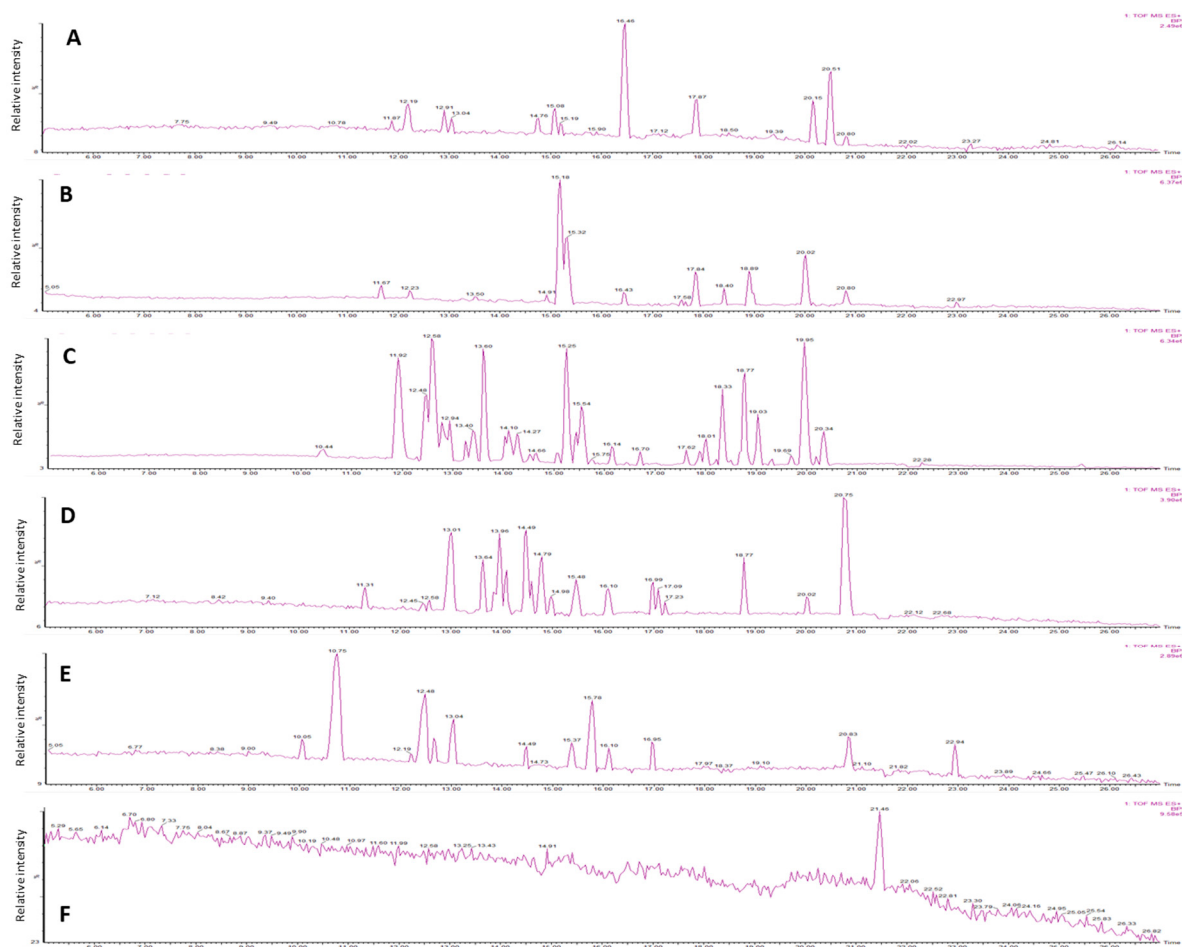


Figure S1. Representative base peak intensity (BPI) chromatograms of FBDA-derivatized peptides obtained from chicken luncheon loaf samples, SCX fractionated, and analyzed by DIA-MS^E in positive ion mode. A) fraction 1, B) fraction 2, C) fraction 3, D) fraction 4, E) fraction 5, F) fraction 6

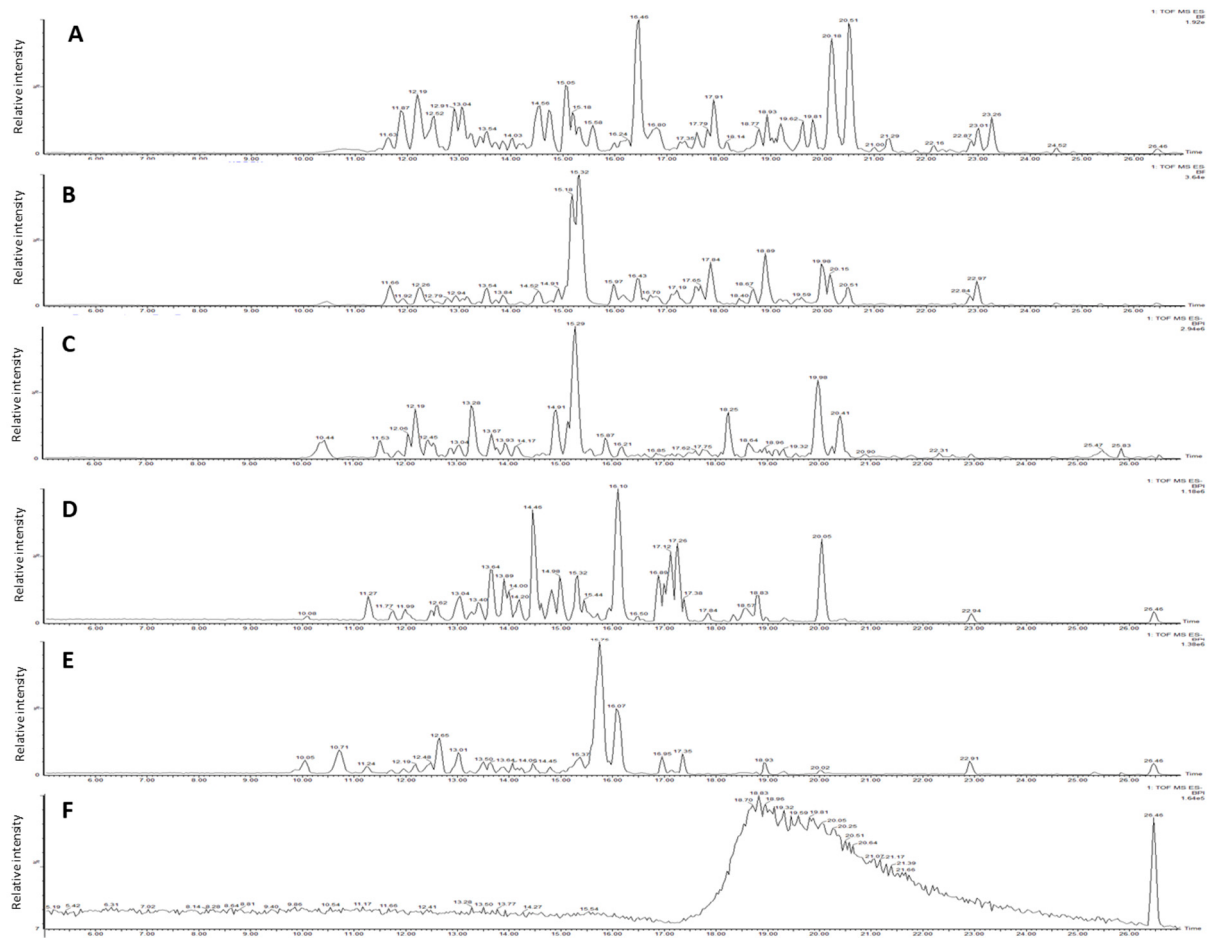


Figure S2. Representative base peak intensity (BPI) chromatograms of FBDA-derivatized peptides obtained from chicken luncheon loaf samples analyzed by DIA-MS^E in negative ion mode. A) fraction 1, B) fraction 2, C) fraction 3, D) fraction 4, E) fraction 5, F) fraction 6

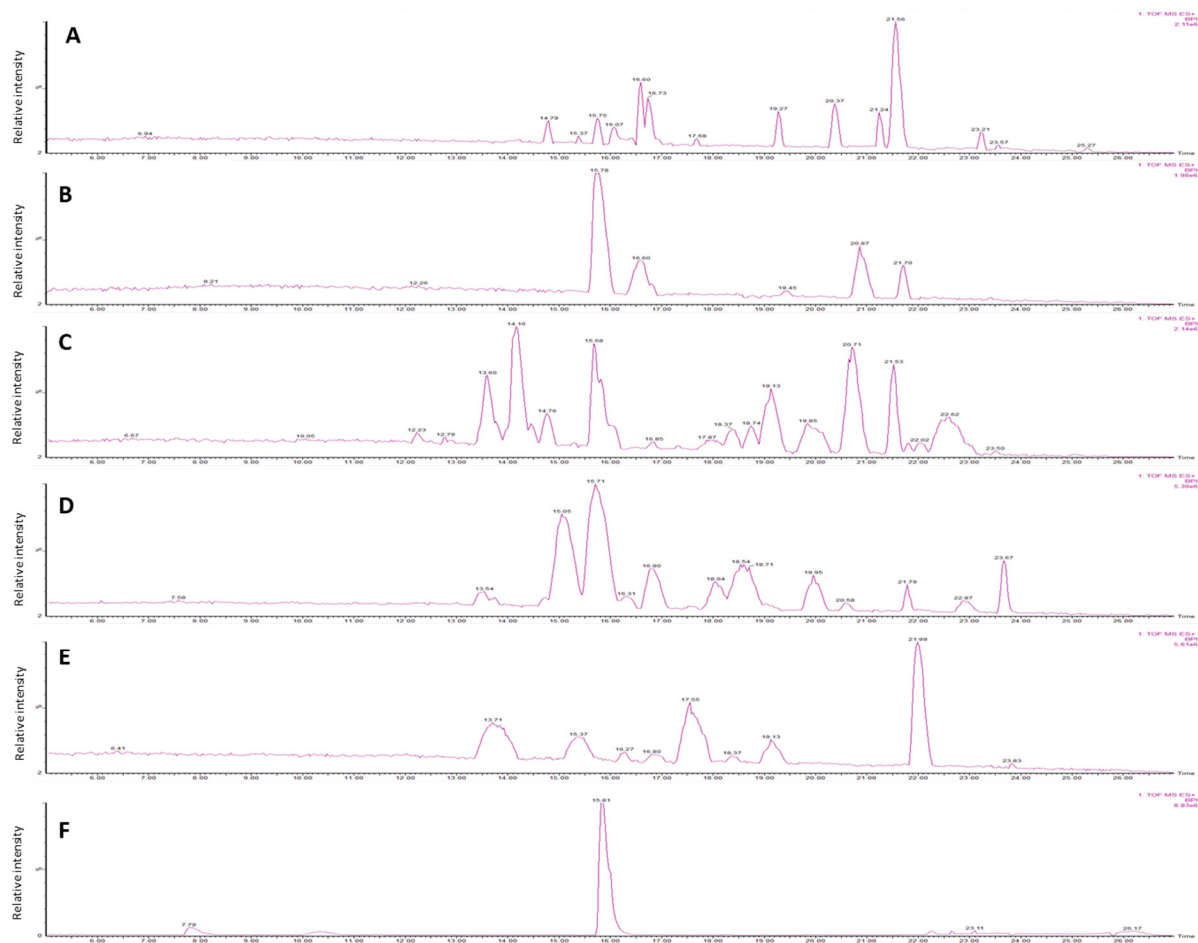


Figure S3. Representative base peak intensity (BPI) chromatograms of FBDA-derivatized peptides obtained from beef luncheon loaf samples, SCX fractionated, and analyzed by DIA-MS^E in positive ion mode. A) fraction 1, B) fraction 2, C) fraction 3, D) fraction 4, E) fraction 5, F) fraction 6

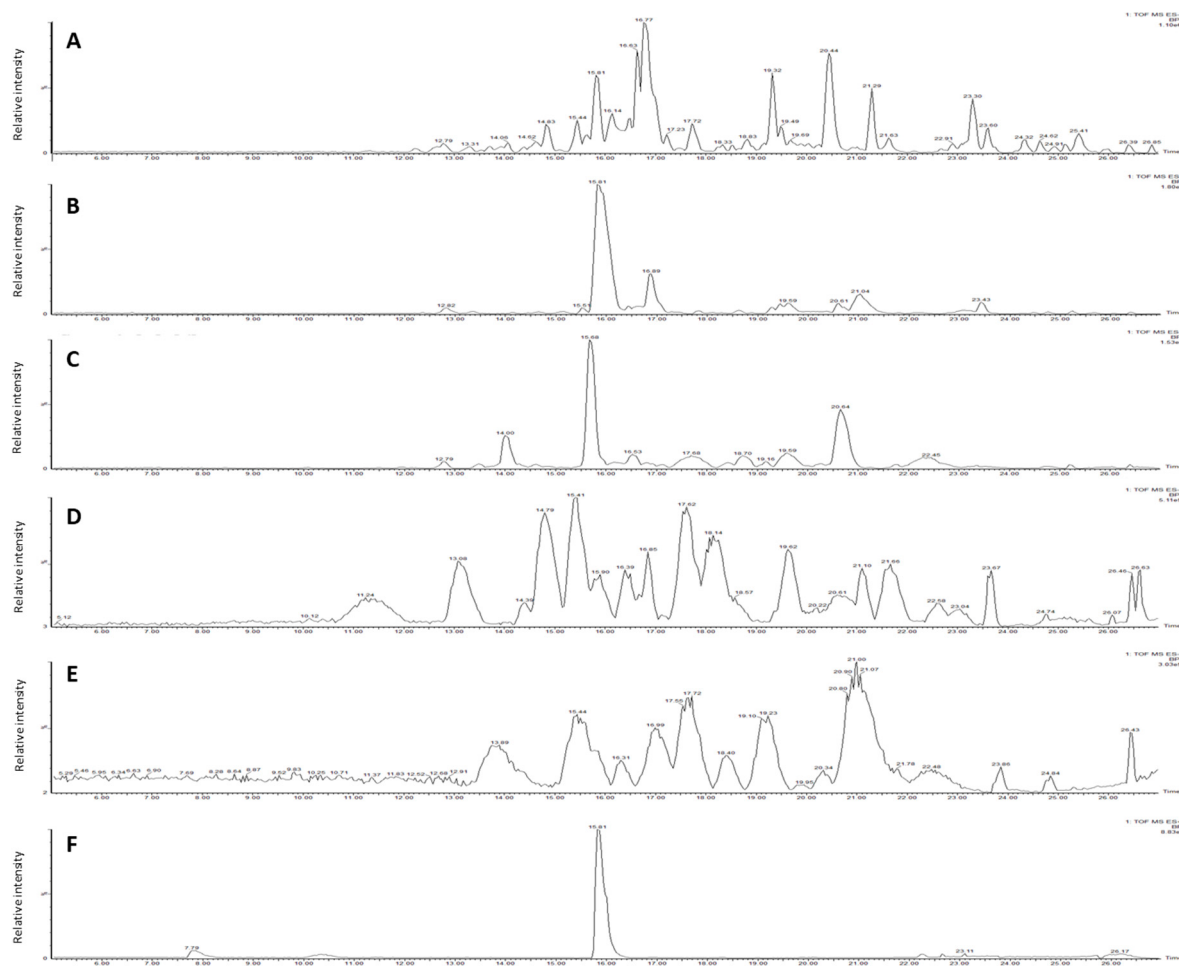


Figure S4. Representative base peak intensity (BPI) chromatograms of FBDA-derivatized peptides obtained from beef luncheon loaf samples analyzed by DIA-MS^E in negative ion mode. A) fraction 1, B) fraction 2, C) fraction 3, D) fraction 4, E) fraction 5, F) fraction 6

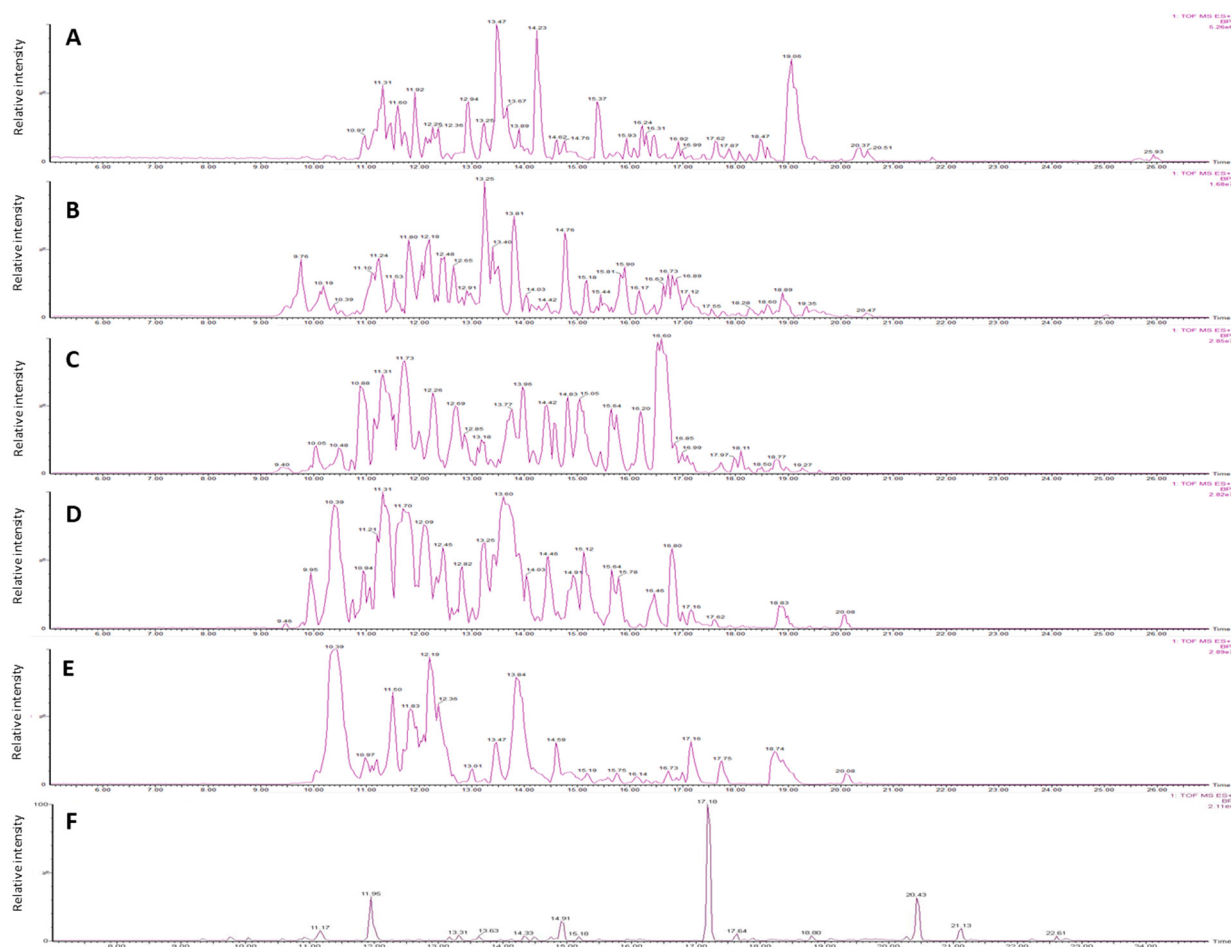


Figure S5. Representative base peak intensity (BPI) chromatograms of FBDA-derivatized peptides obtained from 10% chicken / 90% pork luncheon loaf samples, SCX fractionated, and analyzed by DIA-MS^E in positive ion mode. A) fraction 1, B) fraction 2, C) fraction 3, D) fraction 4, E) fraction 5, F) fraction 6

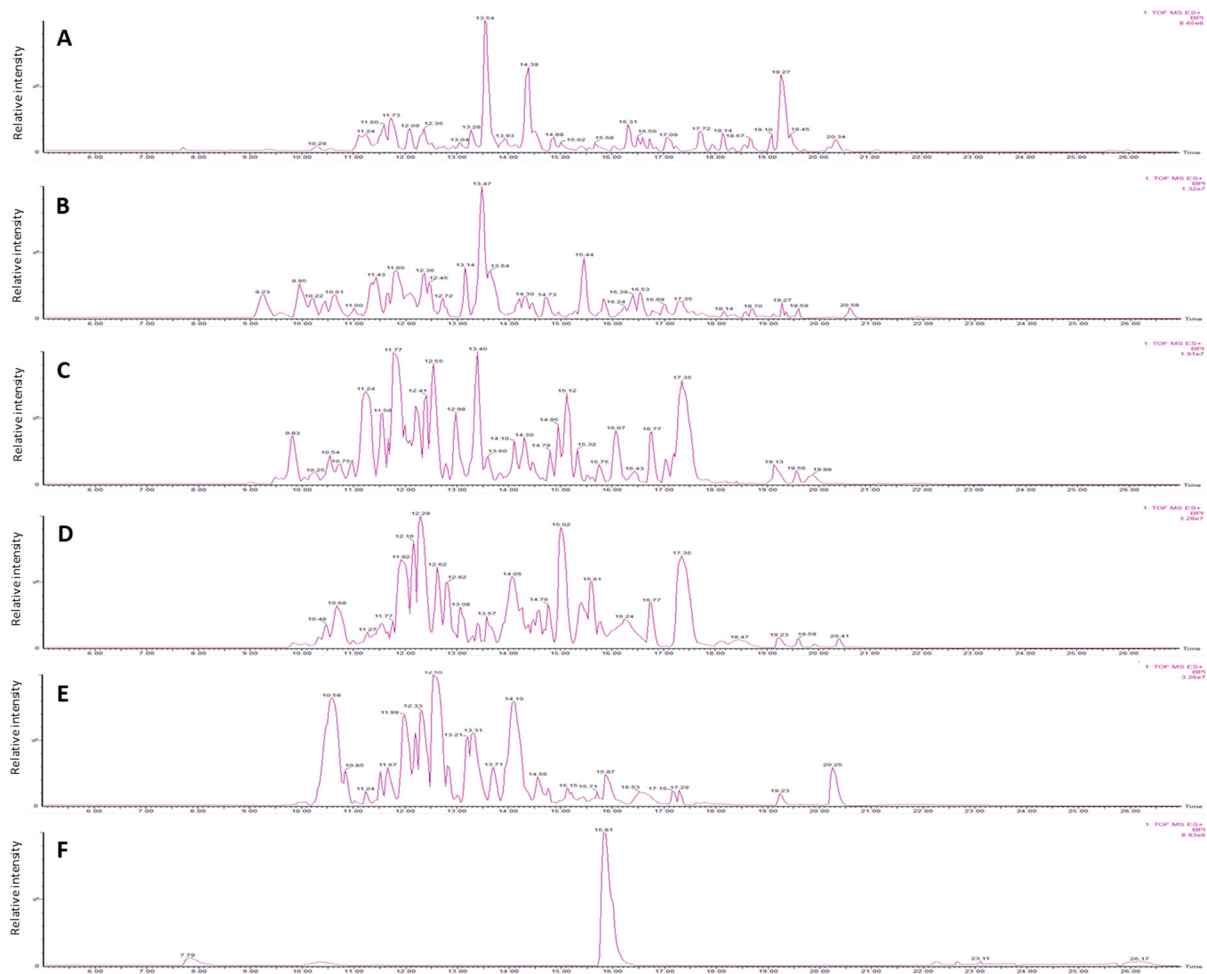


Figure S7. Representative base peak intensity (BPI) chromatograms of FBDA-derivatized peptides obtained from 10% chicken / 90% beef luncheon loaf samples, SCX fractionated, and analyzed by DIA-MS^E in positive ion mode. A) fraction 1, B) fraction 2, C) fraction 3, D) fraction 4, E) fraction 5, F) fraction 6

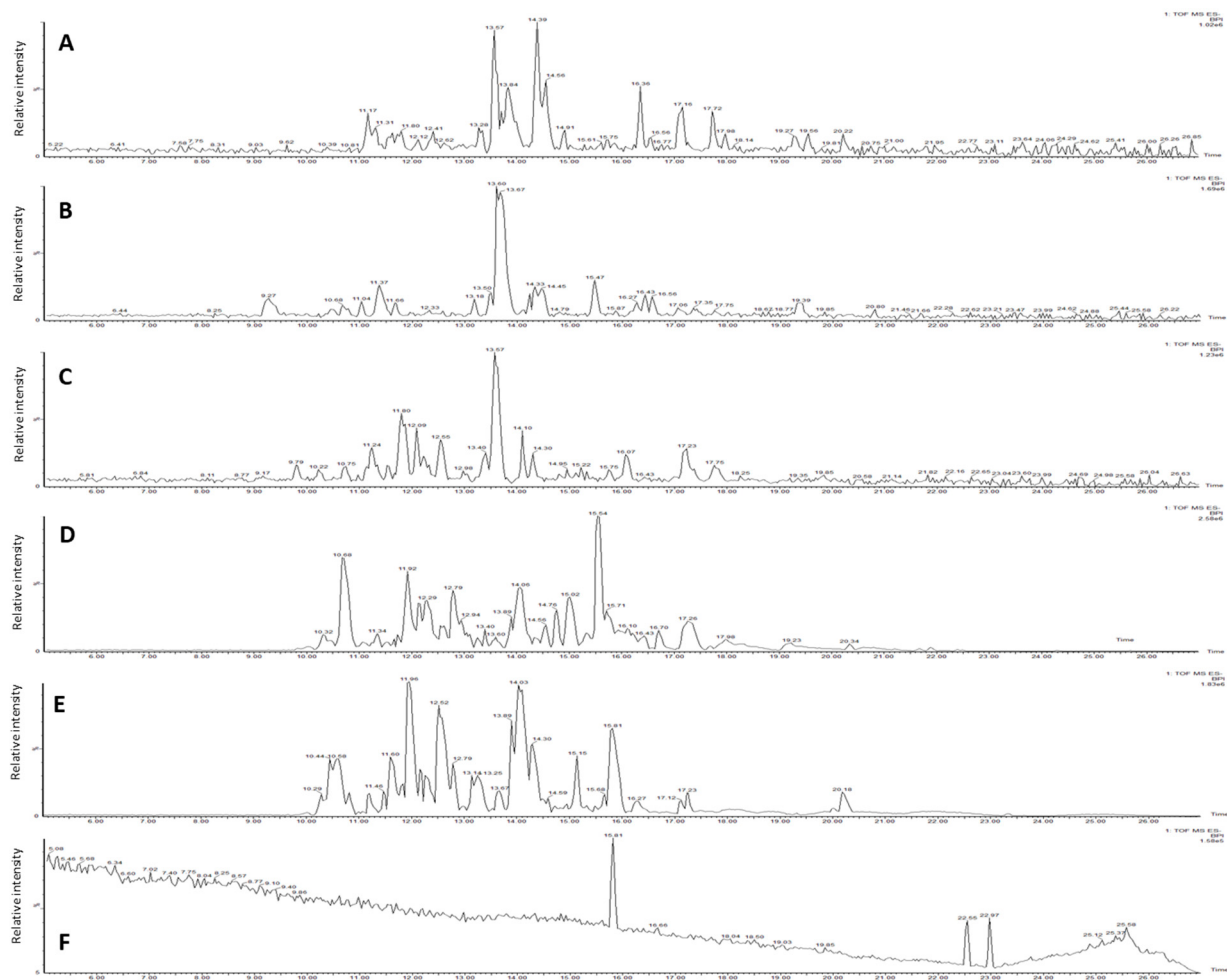


Figure S8. Representative base peak intensity (BPI) chromatograms of FBDA-derivatized peptides obtained from 10% chicken / 90% beef luncheon loaf samples, SCX fractionated, and analyzed by DIA-MS^E in negative ion mode. A) fraction 1, B) fraction 2, C) fraction 3, D) fraction 4, E) fraction 5, F) fraction 6.

Table S1. Pig (*Sus scrofa*, Uniprot ID UP000008227) specific peptides detected in pork luncheon loaf sample, before and after strong cation exchange (SCX) fractionation (Fraction 1–6). Positive detection (+) indicates the peptide was identified in non-fractionated sample or a corresponding SCX fraction, while (–) indicates absence.

Species (UniProt ID)	Protein	Accession No. (UniProtKB/ TrEMBL)	Peptide sequence	Non- fractionated	FR 1	FR 2	FR 3	FR 4	FR 5	FR 6
Pig - <i>Sus scrofa</i> (UP0000082 27)	Hemoglobin subunit alpha	A0A4X1UIB6	MFLGFPTTK	+	+	-	-	-	-	-
			VGGQAGAHGAEALER	-	+	-	-	-	-	-
			TYFPHFNLGSDQVK	+	-	-	-	-	+	+
	Troponin T, fast skeletal muscle	A0A287AFK2	QKYDIINLR	-	+	-	-	-	-	-
	Myosin-2	A0A8D1L3D5	QAYTQQIEELKR	-	+	-	-	-	-	-
	Creatine kinase	A0A8D1L9L8	ALTLEIYKK	+	+	-	-	-	-	-