

Figure S1. Selected ion chromatogram in MRM mode represents the profiles of 17 amino acids in a standard solution at the concentration of $2.5 \mu\text{M L}^{-1}$. **Note:** 1—Cystine (Cys); 2—Serine (Ser); 3—Aspartic acid (Asp); 4—Glycine (Gly); 5—Threonine (Thr); 6—Glutamic acid (Glu); 7—Alanine (Ala); 8—Proline (Pro); 9—Histidine (His); 10—Lysine (Lys); 11—Valine (Val); 12—Arginine (Arg); 13—Methionine (Met); 14—Tyrosine (Tyr); 15—Isoleucine (Ile); 16—Leucine (Leu); 17—Phenylalanine (Phe).

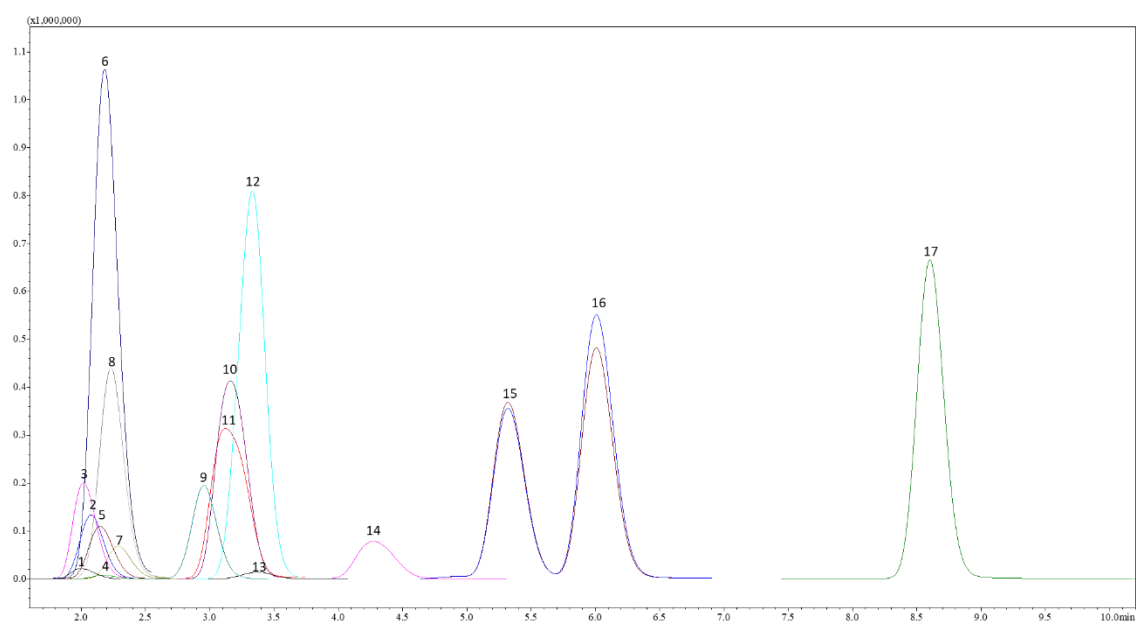


Figure S2. Selected ion chromatogram in MRM mode represents the profiles of 17 amino acids in a prepared sample of Roasted lentils. **Note:** 1—Cystine (Cys); 2—Serine (Ser); 3—Aspartic acid (Asp); 4—Glycine (Gly); 5—Threonine (Thr); 6—Glutamic acid (Glu); 7—Alanine (Ala); 8—Proline (Pro); 9—Histidine (His); 10—Lysine (Lys); 11—Valine (Val); 12—Arginine (Arg); 13—Methionine (Met); 14—Tyrosine (Tyr); 15—Isoleucine (Ile); 16—Leucine (Leu); 17—Phenylalanine (Phe).

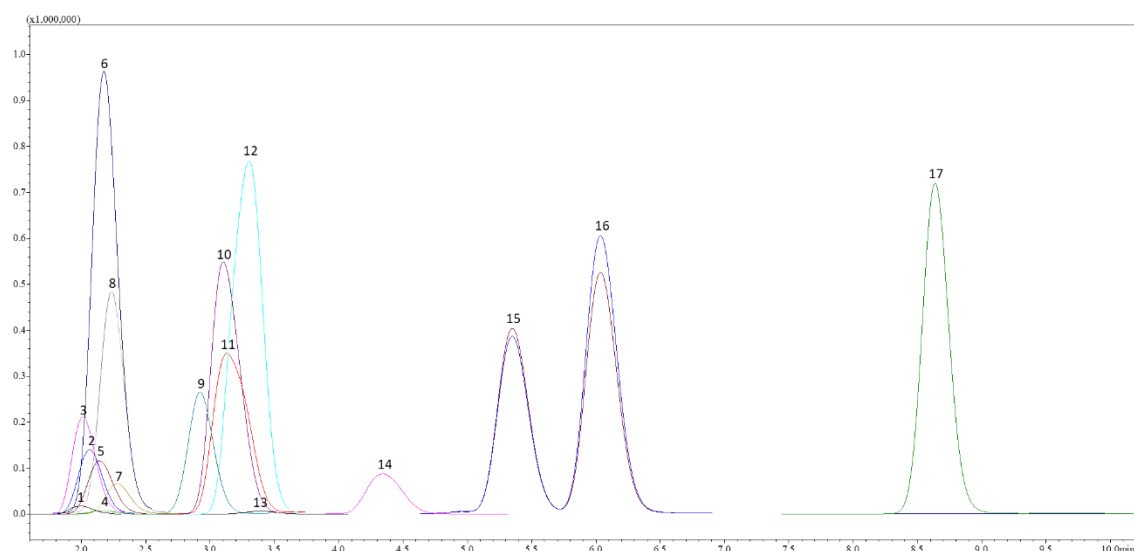


Figure S3. Selected ion chromatogram in MRM mode represents the profiles of 17 amino acids in a prepared sample of Tomatoes soup with roasted lentils. **Note:** 1—Cystine (Cys); 2—Serine (Ser); 3—Aspartic acid (Asp); 4—Glycine (Gly); 5—Threonine (Thr); 6—Glutamic acid (Glu); 7—Alanine (Ala); 8—Proline (Pro); 9—Histidine (His); 10—Lysine (Lys); 11—Valine (Val); 12—Arginine (Arg); 13—Methionine (Met); 14—Tyrosine (Tyr); 15—Isoleucine (Ile); 16—Leucine (Leu); 17—Phenylalanine (Phe).

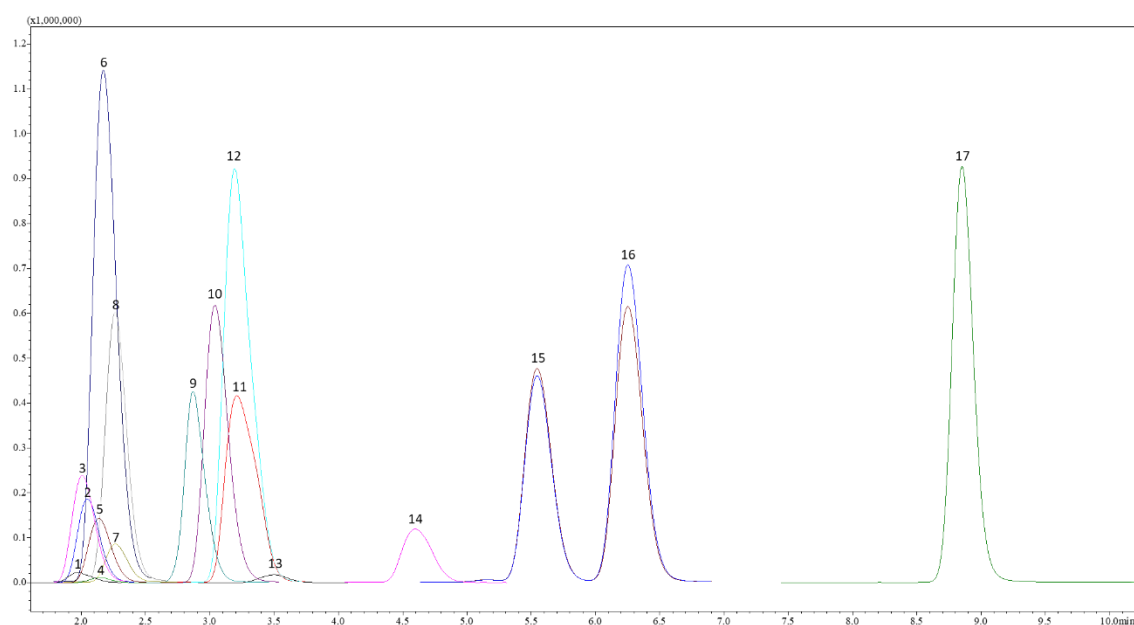


Figure S4. Selected ion chromatogram in MRM mode represents the profiles of 17 amino acids in a prepared sample of Roasted lentils with Bolognese sauce. **Note:** 1—Cystine (Cys); 2—Serine (Ser); 3—Aspartic acid (Asp); 4—Glycine (Gly); 5—Threonine (Thr); 6—Glutamic acid (Glu); 7—Alanine (Ala); 8—Proline (Pro); 9—Histidine (His); 10—Lysine (Lys); 11—Valine (Val); 12—Arginine (Arg); 13—Methionine (Met); 14—Tyrosine (Tyr); 15—Isoleucine (Ile); 16—Leucine (Leu); 17—Phenylalanine (Phe).