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APAF Analytical Services Report

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APAF
australian proteome analysis facility

Example Report

Amino Acid Profile (including Hydroxyproline and Taurine) Analysis

Report number:	PA-R34480-1
Report date:	15th June 2026
Project number:	34480
Client name:	Not Applicable
Client organisation:	APAF
Client address:	Level 4, 4 Wally's Walk, Macquarie Park, New South Wales, 2113
Client contact number:	(02) 9850 6207
Client email:	aaa.apaf@mq.edu.au
Date sample(s) received:	14th April 2026
Number of samples:	Fourteen (14)
Project leader:	Prashina Singh
Authorised by:	Dr. David Cantor
APAF email:	aaa.apaf@mq.edu.au
Attachments	No

The results apply to the sample(s) as received.

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As per APAF Terms and Conditions, **samples will be retained for a period of thirty (30) days** and **testing records will be accessible for a period of three (3) years** from the date of reporting results unless other arrangements have been made; refer to Clause 11.1 (sample retention) and Clause 10.3 (test records) for conditions that apply.

Acknowledgment: To comply with our NCRIS (National Research Infrastructure for Australia) operating grant, we request that any publication arising from access to the facility acknowledge the contribution of APAF staff and include the statement "***This study/project/research used NCRIS-enabled Australian Proteome Analysis Facility (APAF) infrastructure***".

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Accreditation Number: 20344
Accredited for compliance with ISO/IEC 17025 - Testing

SAMPLE DETAILS

- Fourteen samples were received for amino acid profile (including hydroxyproline and taurine) analysis.
- The samples were received in good condition and stored at 4°C and -20°C.
- Sample identifications can be found in the results.

METHOD DETAILS

- Amino acid profile analysis was performed as per APAF SOP AAA-001.
- The samples underwent 24hr liquid hydrolysis in 6M Hydrochloric acid at 110 °C.
- Under these conditions, Asparagine is converted to Aspartic acid and Glutamine to Glutamic acid; therefore, the reported amount of these acids is the sum of those respective components.
- Cysteine and Tryptophan are not analysed by this method.

- After hydrolysis, all amino acids were labelled using the Waters AccQTag Ultra chemistry (following supplier's recommendations) and analysed on a Waters Acquity UPLC.
- Samples were analysed in singlicate.

OPINIONS AND INTERPRETATIONS

Interpretation and/or detailed discussions may be required to fully understand the results presented to you. APAF is committed to assist our clients/collaborators to maximise the value from their results through these consultations. It should be noted that if these results are to be incorporated into a publication, then APAF will be pleased to supply further details/methodology as required by the publishing journal.

RESULTS

Analysis of these samples were completed between the 16th and 22nd of April 2026.

Client Sample ID: Cheese Slices
APAF ID: N/A

Amino Acid Profile Analysis

Amino Acid	Amount (-H_2O; mg/g) *	Amount (mg/g) **	Mole %
Histidine	4.8	5.4	2.4
Serine	8.6	10.3	6.8
Arginine	5.9	6.6	2.6
Glycine	2.6	3.4	3.2
Aspartic acid	11.3	13.1	6.8
Glutamic acid	35.5	40.4	19.1
Threonine	6.1	7.2	4.2
Alanine	4.4	5.6	4.3
Proline	16.4	19.5	11.8
Lysine	13.0	14.8	7.0
Tyrosine	8.4	9.3	3.6
Methionine	4.7	5.3	2.5
Valine	10.1	11.9	7.1
Isoleucine	8.2	9.5	5.0
Leucine	15.5	17.9	9.5
Phenylalanine	8.5	9.6	4.0
Total	163.9	189.8	100.0

Comments

* Calculation based on amino acid residue mass in protein (molecular weight minus H_2O).

** Calculation based on free amino acid molecular weight.

Note: Hydroxyproline and taurine were not detected in this sample, limit of reporting (LOR) – 0.2 mg/g

Client Sample ID: Greek Yoghurt
APAF ID: N/A

Amino Acid Profile Analysis

Amino Acid	Amount (-H_2O; mg/g) *	Amount (mg/g) **	Mole %
Histidine	2.8	3.2	2.3
Serine	5.1	6.1	6.7
Arginine	3.4	3.8	2.5
Glycine	1.6	2.1	3.3
Aspartic acid	7.3	8.4	7.3
Glutamic acid	20.7	23.6	18.4
Threonine	4.1	4.8	4.7
Alanine	3.1	3.8	5.0
Proline	9.4	11.1	11.1
Lysine	8.0	9.2	7.2
Tyrosine	4.9	5.4	3.4
Methionine	2.8	3.2	2.5
Valine	6.1	7.2	7.0
Isoleucine	5.1	5.9	5.2
Leucine	9.6	11.1	9.7
Phenylalanine	4.9	5.5	3.8
Total	98.8	114.5	100.0

Comments

* Calculation based on amino acid residue mass in protein (molecular weight minus H_2O).

** Calculation based on free amino acid molecular weight.

Note: Hydroxyproline and taurine were not detected in this sample, limit of reporting (LOR) – 0.1 mg/g

Client Sample ID: Egg, whole, raw
APAF ID: N/A

Amino Acid Profile Analysis

Amino Acid	Amount (-H_2O; mg/g) *	Amount (mg/g) **	Mole %
Histidine	3.0	3.4	2.1
Serine	8.4	10.2	9.5
Arginine	7.7	8.6	4.8
Glycine	3.4	4.5	5.9
Aspartic acid	11.5	13.3	9.7
Glutamic acid	15.3	17.4	11.6
Threonine	5.5	6.4	5.3
Alanine	6.1	7.6	8.4
Proline	4.4	5.2	4.4
Lysine	8.6	9.8	6.6
Tyrosine	4.9	5.4	2.9
Methionine	4.0	4.6	3.0
Valine	7.5	8.8	7.4
Isoleucine	6.2	7.2	5.4
Leucine	10.2	11.8	8.8
Phenylalanine	6.5	7.3	4.3
Total	113.1	131.6	100.0

Comments

* Calculation based on amino acid residue mass in protein (molecular weight minus H_2O).

** Calculation based on free amino acid molecular weight.

Note: Hydroxyproline and taurine were not detected in this sample, limit of reporting (LOR) – 0.1 mg/g

Client Sample ID: Milk, cow, fresh
APAF ID: N/A

Amino Acid Profile Analysis

Amino Acid	Amount (-H_2O; mg/g) *	Amount (mg/g) **	Mole %
Histidine	0.9	1.0	2.4
Serine	1.6	1.9	6.8
Arginine	1.1	1.2	2.6
Glycine	0.5	0.7	3.2
Aspartic acid	2.3	2.6	7.4
Glutamic acid	6.4	7.3	18.5
Threonine	1.3	1.5	4.7
Alanine	0.9	1.2	4.8
Proline	2.9	3.4	11.0
Lysine	2.5	2.8	7.2
Tyrosine	1.4	1.6	3.3
Methionine	0.9	1.0	2.5
Valine	1.8	2.2	6.9
Isoleucine	1.6	1.8	5.2
Leucine	2.9	3.4	9.7
Phenylalanine	1.5	1.7	3.8
Total	30.5	35.3	100.0

Comments

* Calculation based on amino acid residue mass in protein (molecular weight minus H_2O).

** Calculation based on free amino acid molecular weight.

Note: Hydroxyproline and taurine were not detected in this sample, limit of reporting (LOR) – 0.1 mg/g

Client Sample ID: Bread, White
APAF ID: N/A

Amino Acid Profile Analysis

Amino Acid	Amount (-H_2O; mg/g) *	Amount (mg/g) **	Mole %
Histidine	1.9	2.2	2.0
Serine	3.8	4.6	6.3
Arginine	3.1	3.4	2.8
Glycine	2.8	3.6	7.0
Aspartic acid	3.3	3.8	4.1
Glutamic acid	28.2	32.2	31.6
Threonine	2.3	2.7	3.2
Alanine	2.3	2.9	4.7
Proline	9.1	10.8	13.5
Lysine	1.7	2.0	1.9
Tyrosine	1.7	1.9	1.5
Methionine	1.2	1.4	1.3
Valine	3.4	4.0	4.9
Isoleucine	3.0	3.5	3.8
Leucine	5.6	6.5	7.2
Phenylalanine	4.1	4.7	4.1
Total	77.5	90.0	100.0

Comments

* Calculation based on amino acid residue mass in protein (molecular weight minus H_2O).

** Calculation based on free amino acid molecular weight.

Note: Hydroxyproline and taurine were not detected in this sample, limit of reporting (LOR) – 0.1 mg/g

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Client Sample ID: Prawn
APAF ID: N/A

Amino Acid Profile Analysis

Amino Acid	Amount (–H_2O; mg/g) *	Amount (mg/g) **	Mole %
Hydroxyproline	0.8	1.0	0.5
Histidine	3.7	4.2	1.9
Serine	6.5	7.8	5.3
Arginine	12.4	13.8	5.6
Glycine	6.3	8.3	7.9
Aspartic acid	17.0	19.7	10.5
Glutamic acid	26.6	30.3	14.7
Threonine	6.6	7.8	4.6
Alanine	8.5	10.6	8.5
Proline	5.5	6.6	4.1
Lysine	14.6	16.6	8.1
Tyrosine	6.5	7.2	2.8
Methionine	5.1	5.8	2.8
Valine	7.7	9.2	5.6
Isoleucine	7.8	9.1	4.9
Leucine	13.6	15.8	8.6
Phenylalanine	7.6	8.6	3.7
Total	157.1	182.4	100.0

Comments

* Calculation based on amino acid residue mass in protein (molecular weight minus H_2O).

** Calculation based on free amino acid molecular weight.

Note: Taurine was not detected in this sample, limit of reporting (LOR) – 0.2 mg/g

Client Sample ID: Chicken breast, raw
APAF ID: N/A

Amino Acid Profile Analysis

Amino Acid	Amount (-H_2O; mg/g) *	Amount (mg/g) **	Mole %
Histidine	6.1	6.9	2.5
Serine	7.9	9.5	5.2
Arginine	14.6	16.3	5.3
Glycine	7.7	10.1	7.6
Aspartic acid	19.3	22.4	9.5
Glutamic acid	32.0	36.5	14.1
Threonine	9.3	11.0	5.2
Alanine	11.1	14.0	8.9
Proline	7.1	8.4	4.1
Lysine	19.6	22.4	8.7
Tyrosine	7.5	8.4	2.6
Methionine	6.3	7.2	2.7
Valine	10.6	12.5	6.1
Isoleucine	10.7	12.4	5.4
Leucine	17.3	20.1	8.7
Phenylalanine	8.8	9.9	3.4
Total	196.1	227.8	100.0

Comments

* Calculation based on amino acid residue mass in protein (molecular weight minus H_2O).

** Calculation based on free amino acid molecular weight.

Note: Hydroxyproline and taurine were not detected in this sample, limit of reporting (LOR) – 0.2 mg/g

Client Sample ID: Salmon, raw
APAF ID: N/A

Amino Acid Profile Analysis

Amino Acid	Amount (–H_2O; mg/g) *	Amount (mg/g) **	Mole %
Histidine	5.0	5.7	2.5
Taurine [a]	-	0.4	0.2
Serine	6.5	7.8	5.1
Arginine	10.5	11.8	4.6
Glycine	7.1	9.3	8.5
Aspartic acid	17.1	19.8	10.1
Glutamic acid	24.0	27.3	12.7
Threonine	8.0	9.4	5.4
Alanine	9.5	12.0	9.1
Proline	5.8	6.9	4.1
Lysine	16.3	18.6	8.7
Tyrosine	6.3	7.0	2.7
Methionine	5.7	6.4	2.9
Valine	9.6	11.4	6.6
Isoleucine	8.5	9.8	5.1
Leucine	13.9	16.1	8.3
Phenylalanine	7.5	8.5	3.5
Total	161.3	188.1	100.0

Comments

* Calculation based on amino acid residue mass in protein (molecular weight minus H_2O).

** Calculation based on free amino acid molecular weight.

[a] As Taurine is not incorporated in protein, Amount (-H_2O) is not reported.

Note: Hydroxyproline was not detected in this sample, limit of reporting (LOR) – 0.2 mg/g

Client Sample ID: Pork, raw
APAF ID: N/A

Amino Acid Profile Analysis

Amino Acid	Amount (–H_2O; mg/g) *	Amount (mg/g) **	Mole %
Hydroxyproline	0.8	1.0	0.4
Histidine	8.9	10.1	3.7
Taurine [a]	-	0.3	0.1
Serine	7.7	9.4	5.1
Arginine	13.6	15.1	4.9
Glycine	8.0	10.5	8.0
Aspartic acid	19.0	22.0	9.4
Glutamic acid	31.5	35.9	13.9
Threonine	9.2	10.8	5.2
Alanine	10.8	13.5	8.6
Proline	7.6	9.0	4.5
Lysine	18.7	21.3	8.3
Tyrosine	7.5	8.3	2.6
Methionine	6.1	6.9	2.6
Valine	10.4	12.3	6.0
Isoleucine	10.1	11.7	5.1
Leucine	16.8	19.5	8.5
Phenylalanine	8.6	9.7	3.3
Total	195.4	227.4	100.0

Comments

* Calculation based on amino acid residue mass in protein (molecular weight minus H_2O).

** Calculation based on free amino acid molecular weight.

[a] As Taurine is not incorporated in protein, Amount (-H_2O) is not reported.

Client Sample ID: Beef, raw
APAF ID: N/A

Amino Acid Profile Analysis

Amino Acid	Amount (–H_2O; mg/g) *	Amount (mg/g) **	Mole %
Hydroxyproline	0.4	0.4	0.2
Histidine	8.9	10.1	3.5
Taurine [a]	-	0.4	0.2
Serine	8.2	9.8	5.0
Arginine	14.2	15.9	4.9
Glycine	7.8	10.3	7.4
Aspartic acid	20.2	23.3	9.4
Glutamic acid	33.6	38.3	14.0
Threonine	9.9	11.6	5.3
Alanine	11.5	14.4	8.7
Proline	7.8	9.2	4.3
Lysine	20.3	23.1	8.5
Tyrosine	8.0	8.9	2.6
Methionine	6.3	7.2	2.6
Valine	11.0	13.0	6.0
Isoleucine	10.9	12.6	5.2
Leucine	18.6	21.5	8.8
Phenylalanine	9.4	10.6	3.5
Total	206.9	240.7	100.0

Comments

* Calculation based on amino acid residue mass in protein (molecular weight minus H_2O).

** Calculation based on free amino acid molecular weight.

[a] As Taurine is not incorporated in protein, Amount (-H_2O) is not reported.

Client Sample ID: White quinoa
APAF ID: N/A

Amino Acid Profile Analysis

Amino Acid	Amount (-H_2O; mg/g) *	Amount (mg/g) **	Mole %
Histidine	3.2	3.6	2.8
Serine	4.5	5.4	6.3
Arginine	9.5	10.6	7.4
Glycine	5.1	6.7	10.8
Aspartic acid	8.9	10.3	9.4
Glutamic acid	15.7	17.9	14.8
Threonine	3.8	4.5	4.6
Alanine	4.4	5.5	7.5
Proline	3.9	4.6	4.9
Lysine	6.0	6.9	5.7
Tyrosine	2.6	2.9	1.9
Methionine	2.0	2.2	1.8
Valine	5.0	5.9	6.1
Isoleucine	4.4	5.1	4.7
Leucine	7.2	8.3	7.7
Phenylalanine	4.5	5.0	3.7
Total	90.7	105.5	100.0

Comments

* Calculation based on amino acid residue mass in protein (molecular weight minus H_2O).

** Calculation based on free amino acid molecular weight.

Note: Hydroxyproline and taurine were not detected in this sample, limit of reporting (LOR) – 0.3 mg/g

Client Sample ID: Spaghetti, dry
APAF ID: N/A

Amino Acid Profile Analysis

Amino Acid	Amount (-H_2O; mg/g) *	Amount (mg/g) **	Mole %
Histidine	2.6	3.0	2.1
Serine	5.2	6.3	6.6
Arginine	3.8	4.2	2.6
Glycine	3.2	4.2	6.1
Aspartic acid	4.4	5.1	4.2
Glutamic acid	37.3	42.5	31.7
Threonine	3.0	3.5	3.2
Alanine	3.1	3.9	4.8
Proline	12.2	14.4	13.7
Lysine	2.0	2.2	1.7
Tyrosine	1.3	1.4	0.9
Methionine	1.4	1.6	1.2
Valine	4.7	5.5	5.2
Isoleucine	4.2	4.8	4.0
Leucine	8.2	9.5	7.9
Phenylalanine	5.6	6.3	4.2
Total	102.0	118.5	100.0

Comments

* Calculation based on amino acid residue mass in protein (molecular weight minus H_2O).

** Calculation based on free amino acid molecular weight.

Note: Hydroxyproline and taurine were not detected in this sample, limit of reporting (LOR) – 0.2 mg/g

Client Sample ID: Whey protein powder
APAF ID: N/A

Amino Acid Profile Analysis

Amino Acid	Amount (-H_2O; mg/g) *	Amount (mg/g) **	Mole %
Histidine	13.0	14.7	1.5
Serine	34.8	42.0	6.4
Arginine	17.7	19.7	1.8
Glycine	11.1	14.6	3.1
Aspartic acid	74.0	85.6	10.4
Glutamic acid	124.0	141.3	15.5
Threonine	49.8	58.7	7.9
Alanine	33.2	41.6	7.5
Proline	41.6	49.4	6.9
Lysine	65.5	74.7	8.2
Tyrosine	20.5	22.7	2.0
Methionine	15.8	18.0	1.9
Valine	42.1	49.8	6.8
Isoleucine	46.7	54.1	6.7
Leucine	75.6	87.6	10.8
Phenylalanine	22.6	25.4	2.5
Total	688.1	800.0	100.0

Comments

* Calculation based on amino acid residue mass in protein (molecular weight minus H_2O).

** Calculation based on free amino acid molecular weight.

Note: Hydroxyproline and taurine were not detected in this sample, limit of reporting (LOR) – 0.3 mg/g

Client Sample ID: Tofu
APAF ID: N/A

Amino Acid Profile Analysis

Amino Acid	Amount (-H_2O; mg/g) *	Amount (mg/g) **	Mole %
Histidine	3.9	4.4	2.2
Serine	7.5	9.0	6.6
Arginine	11.4	12.8	5.6
Glycine	5.5	7.2	7.4
Aspartic acid	17.3	20.1	11.6
Glutamic acid	27.6	31.5	16.5
Threonine	5.7	6.7	4.4
Alanine	6.1	7.6	6.6
Proline	7.5	8.9	6.0
Lysine	9.5	10.8	5.7
Tyrosine	5.7	6.3	2.7
Methionine	2.0	2.3	1.2
Valine	7.3	8.6	5.7
Isoleucine	7.5	8.7	5.1
Leucine	12.1	14.1	8.3
Phenylalanine	8.5	9.6	4.5
Total	145.2	168.6	100.0

Comments

* Calculation based on amino acid residue mass in protein (molecular weight minus H_2O).

** Calculation based on free amino acid molecular weight.

Note: Hydroxyproline and taurine were not detected in this sample, limit of reporting (LOR) – 0.3 mg/g