

Final Report

Amino Acid Profile Analysis, including Hydroxyproline and Taurine Analysis

Report number:	PA-R32528-1
Report date:	24 th May 2022
Project number:	32528
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Date sample(s) received:	22 nd April 2022
Number of samples:	One
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Attachments	No

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

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 require 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*".



Accreditation Number: 20344

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SAMPLE DETAILS

- One sample was received for amino acid profile analysis, including Hydroxyproline and Taurine analysis.
- The sample was received in good condition, at room temperature, and was stored at room temperature prior to analysis.
- Sample identification can be found in the results.

METHOD DETAILS

Analysis of this sample was undertaken between the 12th May 2022 and the 23rd May 2022.

- Amino acid profile analysis, including Hydroxyproline and Taurine analysis, was performed as per APAF SOP AAA-001.
- Sample underwent 24hr liquid hydrolysis in 6M hydrochloric acid at 110 °C.
- Under these conditions, Asparagine is hydrolysed 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.
- Sample was analysed in duplicate and results are expressed as an average.
- Your amino acid of interest, **Hydroxyproline**, has been highlighted in bold in the results.

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

Sample ID: Pure Beef Bone Broth
APAF ID: S0018096

Amino Acid Profile Analysis

Amino Acid***	Amount (-H ₂ O; mg/g)*	Amount (mg/g)**	Mole %
Hydroxyproline	86.5	100.3	8.9
Histidine	9.1	10.3	0.8
Serine	25.5	30.7	3.4
Arginine	65.3	72.9	4.9
Glycine	153.6	202.1	31.3
Aspartic acid	48.5	56.0	4.9
Glutamic acid	92.6	105.5	8.3
Threonine	16.5	19.4	1.9
Alanine	65.4	82.0	10.7
Proline	96.1	113.9	11.5
Lysine	32.4	36.9	2.9
Tyrosine	8.8	9.8	0.6
Methionine	8.6	9.8	0.8
Valine	23.1	27.3	2.7
Isoleucine	14.6	17.0	1.5
Leucine	32.2	37.3	3.3
Phenylalanine	20.6	23.1	1.6
Total	799.4	954.4	100.0

Comments

* Calculation based on amino acid residue mass in protein (molecular weight minus H₂O).

** Calculation based on free amino acid molecular weight.

*** Taurine was not detected in this sample. The limit of reporting (LOR) was 0.9mg/g.