

**ANALYSIS SERVICE  
ITEMLIST 2020****Peptide or protein bound amino acids <sup>a</sup>**

1. Acid hydrolysis
2. Analysis of up to 24 amino acids and related compounds after acid hydrolysis <sup>b</sup>
3. Oxidation + acid hydrolysis for Cyst(e)ine and Methionine <sup>c</sup>
4. Analysis of Cyst(e)ine and Methionine after oxidation and acid hydrolysis
5. Alkaline hydrolysis for Tryptophan <sup>d</sup>
6. Analysis of Tryptophan after alkaline hydrolysis

**7. Total analysis (= 1 + 2 + 3 + 4 + 5 + 6)**

<sup>a</sup> On the orderform for each sample please tick off each combination of sample preparation and analysis required (1 + 2 and/or 3 + 4 and/or 5 + 6, or 7 if all combinations are required).

If you prefer to perform sample preparation yourself:

- please do not add an internal standard and/or contact us first;
- sample preparations will be tested for free amino acids only.

<sup>b</sup> Samples are standard tested for 17 common amino acids:

Alanine, Arginine, Aspartic acid, Glutamic Acid, Glycine, Histidine, Isoleucine, Leucine, Lysine, Phenylalanine, Proline, Serine, Threonine, Tyrosine and Valine.  
During hydrolysis Asparagine and Glutamine are converted into Asp and Glu respectively.  
Cystine, Methionine, and Tryptophan are (partially) decomposed. Where applicable testing for additional compounds like  $\alpha$ -Hydroxylysine and Hydroxyproline will be performed.

<sup>c</sup> Before hydrolysis Cyst(e)ine and Methionine are oxidized to Cysteic Acid and Methionine Sulfone respectively.

<sup>d</sup> Tryptophan is stable during alkaline hydrolysis.

**8. Analysis of 3 or less amino acids, including acid hydrolysis****Free amino acids**

9. Analysis of upto 41 free amino acids and related compounds <sup>e</sup>
10. Analysis of 3 or less free amino acids
11. Analysis of free Tryptophan

<sup>e</sup>  $\alpha$ -Alanine, Alanine,  $\alpha$ -Amino adipic Acid,  $\alpha$ -Amino-n-butyric Acid,  $\beta$ -Amino-n-butyric Acid (GABA),  $\beta$ -Aminoisobutyric Acid, Anserine, Arginine, Asparagine, Aspartic Acid, Carnosine, Citrulline, Cystathionine, Cysteine, Cystine, Ethanolamine, Glutamic Acid, Glutamine, Glycine, Histidine, Homocitrulline, Homocystine,  $\alpha$ -Hydroxylysine, Hydroxyproline, Isoleucine, Leucine, Lysine, Methionine, 1-Methylhistidine, 3-Methylhistidine, Ornithine, Phenylalanine, Phosphoserine, Phosphoethanolamine, Proline, Sarcosine, Serine, Taurine, Threonine, Tyrosine and Valine.

**ANALYSIS SERVICE  
ITEMLIST 2020****Tryptophan metabolites**

12. Analysis of free Tryptophan and upto 11 free Trp-metabolites (indoles) <sup>f</sup>
13. General urine tests (Combur<sup>9</sup>-test + creatinine)

<sup>f</sup> N-Acetyl-tryptophan, 5-OH-indole-3-acetic Acid, 3-OH-kynurenine, 5-OH-tryptamine (Serotonin), 5-OH-tryptophan, Indole-3-acetic Acid, Indole-3-propionic Acid, 3-Indoxylsulphate (Indican), Kynurenic Acid, Kynurenine and Xanthurenic Acid.

**Biogenic amines <sup>g</sup>**

14. Extraction + concentration
15. Analysis of upto 14 biogenic amines and related compounds <sup>h</sup>

<sup>g</sup> If you prefer to perform sample preparation yourself only item 15 applies.  
Please do not add an internal standard and/or contact us first.

<sup>h</sup> Agmatine, Arterenol, Benzylamine, Cadaverine, Cystamine, Di-Aminopropane (DAP), Hexamethylenediamine (HMDA), Histamine, Phenylethylamine, Putrescine, Spermidine, Spermine, Tyramine and Tryptamine.  
Other biogenic amines on request.

**Coupled amino acids**

16. Analysis of Lysinoalanine (including acid hydrolysis)
17. Available Lysine (analysis of Lysine + Furosine including acid hydrolysis)
18. Analysis of Carboxymethyllysine (including acid hydrolysis)
19. Analysis of Lanthionine (including acid hydrolysis)
20. Analysis of Hydroxymethylfurfural
21. Native Collagen test
22. Collagen Reference Sample

**Other compounds**

23. Analysis of amino sugars like Glucosamine and Galactosamine
24. Analysis of other amino compounds like Albiziin,  $\alpha$ -Amino-levulinic Acid, Cysteic Acid, Diaminobutiric Acid (DAB), Desmosine, Glutathion (oxidized and reduced), Hypotaurine, Isodesmosine, Methionine Sulfone, Methionine Sulfoxide, Pipecolic Acid, Saccharopine, Threoninol, etc..

**General**

25. Extraction

**For current prices, quotations and compounds not included in this list please contact us by phone or email.**