

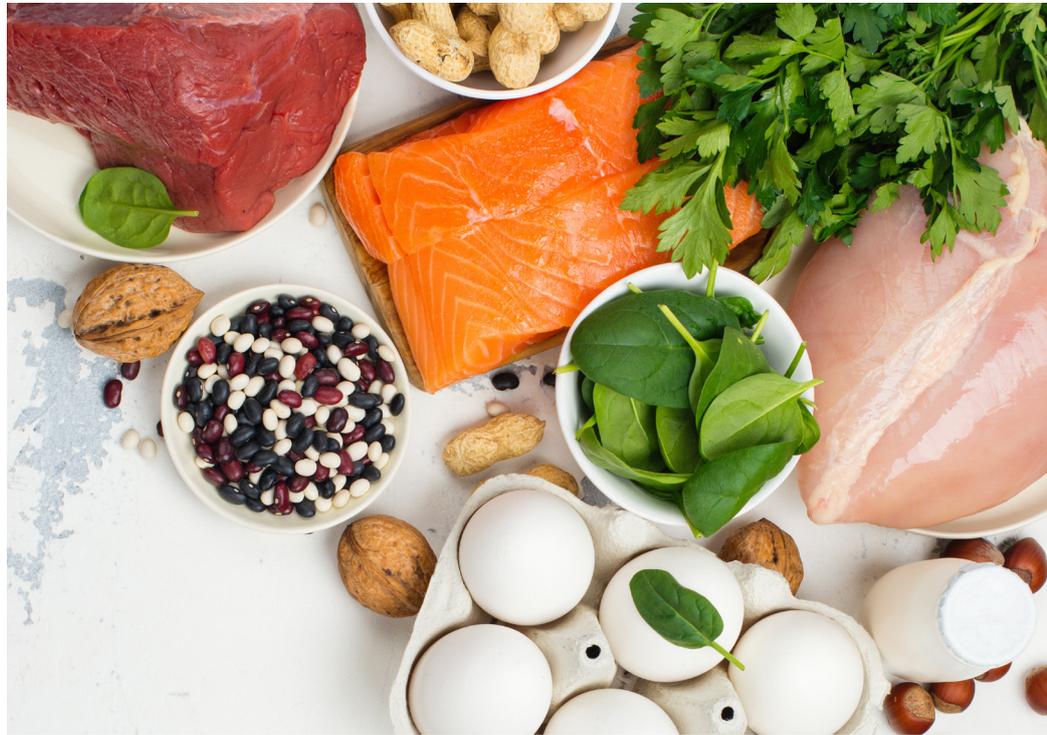


Measurement of Protein Digestibility: Animal-Safe Accurate Protein Quality Score



As food manufacturers seek alternative protein sources, Megazyme is proud to present the **world's first assay kit** for measurement of protein quality.

Our **Protein Digestibility Assay Kit (K-PDCAAS)** is based on the patented **ASAP-Quality Score** developed by our partners at Medallion Labs.



Measuring Protein Digestibility for PDCAAS

PDCAAS (Protein Digestibility Corrected Amino Acid Score) is the industry standard for reporting of protein content in samples of foodstuffs, supplements, and animal feed product. There are **three key parameters** used to measure a sample's PDCAAS.

1. Amino Acid Analysis

Typically out by an analytical laboratory (\$800-900 per test)

2. Total Protein

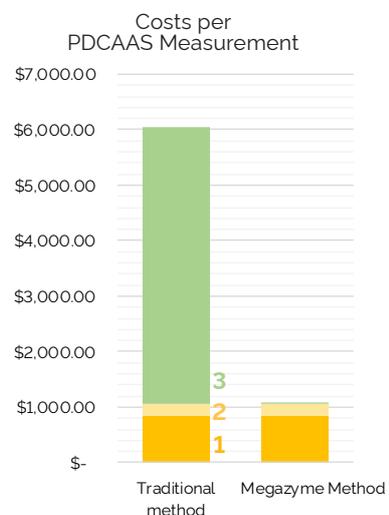
Dumas or Kjeldahl test by an analytical laboratory (~ \$200 per test)

3. Protein Digestibility

The **ASAP-quality score method** used in our PDCAAS Assay Kit offers the following advantages over traditional rat-based animal studies:

- rapid turnaround of results (**same-day** vs 2-3 months)
- significantly more **cost-effective** per test
- **ethical testing method**: ASAP completely eliminates the need for an animal study, meaning no animals are used and later sacrificed as part of the method

Notably, K-PDCAAS obtains protein quality score values that are consistent with results obtained from animal studies.



Historically, protein quality score has been the most labour-intensive and costly element of digestibility analysis. Using Medallion's Animal-Safe Accurate Protein (ASAP) method, Megazyme's new assay kit is set to revolutionise measurement of protein quality scores.

To discover more, find us online at www.megazyme.com





Measurement of Protein Digestibility: Animal-Safe Accurate Protein Quality Score



Manufacturers around the world are choosing the ASAP-Quality Score method as they analyse the **protein digestibility** of their foods and feeds.

ASAP-Quality Score is:

1. cost-effective
2. rapid
3. animal-safe



PDCAAS and the ASAP-Quality Score Method

Protein Digestibility Corrected Amino Acid Score (PDCAAS) is required by most regulatory bodies when asserting a protein content claim on a commercial food or feed product. One of the parameters needed to calculate the PDCAAS of a sample is **protein digestibility**.

Determining PDCAAS with the Protein Digestibility Assay Kit

Determine primary amine concentration colourimetrically and correct for dilution and weight

Correct for amino acids present and correlate to literature values using linear regression

Calculate *in vitro* **protein digestibility** (range: 0 to 1)

Calculate amino acid ratio and identify limiting amino acid

Calculate *in vitro* **PDCAAS** (range: 0 to 1)

Amino Acid Analysis

Total Protein

Until now, *in vitro* protein digestibility could only be determined using a lengthy, resource-intensive rat study. The ASAP-Quality Score can be determined in a standard analytical laboratory in a matter of hours.

Our Protein Digestibility Assay Kit, based on Medallion's patented ASAP-Quality Score method, offers significant advantages over traditional methods in terms of cost, convenience, speed, and animal welfare.

Join the revolution today, or contact our scientists to find out more.

Item Code	Product Name	No. Assays
K-PDCAAS	Protein Digestibility Assay Kit (ASAP-Quality Score Method)	50



Medallion Labs
FOOD FIRST. SCIENCE FOREMOST.

To discover more, find us online at www.megazyme.com