

GSH COMPLEX

Protein Quality Measurement

Protein Digestibility Corrected Amino Acid Scoring (PDCAAS)

What is protein quality and how is it measured?

Nutritionists have long declared proteins as an important part of a healthful diet. Proteins provide amino acids that are required for growth and maintenance of the human body. However proteins from different sources are composed of different amino acids. Because of the differences in composition, not all proteins can meet the needs of human body. It is important to determine the quality of proteins that are utilized in food formulations.

Historically, the quality of proteins has been determined by **Protein Efficiency Ratio (PER)**, which measures the weight gain of growing rats when being fed the test protein. This value, as compared to weight gain on the standard protein (casein), gives an indication of the quality of the test protein. The PER value of casein is 2.7. Any protein that has a higher value is considered an excellent quality protein. Whey proteins generally have a PER of 3.2.

Nutritionists have recently recognized that PER method of classifying protein quality only reflected the amino acid requirements for the rat rather than the actual human amino acid requirements. The Food and Agriculture Organization (FAO) established a new method to compare the quality of various proteins based on the amino acid requirements of humans. This method, known as **protein digestibility corrected amino acid score (PDCAAS)** is an internationally recognized method. According to this method, an ideal protein that meets all the essential amino acid requirements of human body will have a value of 1.0.

PDCAAS of GSH COMPLEX

We at **Mecka Nutraceutical** are very proud to say that **GSH COMPLEX** has received a PDCAAS value of 1.14. This work was conducted by Nutrition International, an experienced laboratory in the industry for conducting clinical analysis. PDCAAS values of greater than 1.0 indicate a high digestibility and a high ratio of amino acid profile in **GSH COMPLEX** as compared to FAO's reference profile.