

Calculation PDCAAS (%)

$$= \frac{\text{mg of limiting amino acid in 1 g of test protein}}{\text{mg of same amino acid in 1 g of reference protein}} \times \text{fecal true digestibility (\%)} \times 100$$

FAO/WHO/UNU amino acid requirement pattern based amino acid requirements of preschool-age child (FAO 1985)						
Amino Acid	mg/g crude protein			Factor	Contribution	
	Requirement	Value in LBG Protein				
Isoleucine	28	37		1	28	
Leucine	66	63		0.95	63	
Lysine	58	58		1	58	
Total sulfur Amino Ac.	25	29		1	25	
Total aromatic Amino Ac.	63	104		1	63	
Threonine	34	36		1	34	
Tryptophan	11	13		1	11	
Valine	35	42		1	35	
	320				317	
	Final				0.99	
	0.99	x	0.70	x	100%	0.69 = is the PDCAAS

Typical for legumes

FAO/WHO/UNU amino acid requirement pattern based amino acid requirements of adults (FAO 1985)						
Amino Acid	mg/g crude protein			Factor	Contribution	factor/g
	Requirement	Value in LBG Protein				
Isoleucine	13	37		1	13	2.8
Leucine	19	63		1	19	3.3
Lysine	16	58		1	16	3.6
Total sulfur Amino Ac.	17	29		1	17	1.7
Total aromatic Amino Ac.	19	104		1	19	5.5
Threonine	9	36		1	9	4.0
Tryptophan	5	13		1	5	2.6
Valine	13	42		1	13	3.2
	111				111	
	Final				1.00	

The Carob protein **provides 1.7** times the recommendation of mg/g crude protein, based on the lowest value

	1.00	x	0.70	x	100%	0.70 = is the PDCAAS
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Typical for legumes

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