



राष्ट्रीय पोषण संस्थान NATIONAL INSTITUTE OF NUTRITION

Indian Council of Medical Research
Jamai-Osmania PO, Hyderabad-500 604, A.P.

TEST CERTIFICATE

Name & Address of the client	: Soy Food Promotion & Welfare Association
Request Reference	: NIN/FCD/2009/Dal Analogue
Name of the Product/Sample	: Dal Analogue
Batch number	: -
Manufacture date	: -
Expiry date	: -
Date of results release	: 09/03/2010

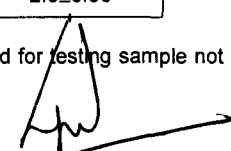
Sl. No	Parameters		Amino acid content	(g/100g of protein)
1	Moisture (g/ 100g.)	9.48	Aspartic acid	9.6
2	Protein (g/100g)	32.50	Threonine	3.5
3	Total Ash (g/100g)	4.09	Serine	4.7
4	Fat (g/100g)	0.54	Glutamic acid	21.1
5	Total dietary fibre (g/100g)	16.95	Proline	8.6
	Insoluble dietary fibre (g/100g)	14.06	Glycine	4.0
	Soluble dietary fibre (g/100g)	2.89	Alanine	4.0
6	Carbohydrates (g/100g)	36.44	Cystine	0.9
7	Energy (Kcal)	286	Valine	4.0
8	Minerals(mg/100g)		Methionine	1.2
	Calcium	230.84	Isoleucine	4.2
	Magnesium	246.32	Leucine	6.8
	Copper	1.18	Tyrosine	3.7
	Manganese	3.09	Phenylalanine	5.1
	Iron	8.2	Histidine	2.7
	Zinc	4.42	Lysine	5.5
	Phosphorus	424.88	Arginine	7.0
9	Vitamins(mg/100g)		Total Amino Acids	96.7
	Thiamine	0.22	Total Essential Amino Acids	34.9
	Niacin	2.48	Amino acid Score	85.8
	Riboflavin	0.16	Limiting Amino acid	Cys & Met
10	Phytate (mg/100g)	3.13		

PROTEIN QUALITY EVALUATION OF DAL ANALOGUE IN MALE W/NIN RATS

PARAMETER	GROUP-I (PROTEIN FREE)	GROUP-II (CASEIN)	GROUP-III (DAL ANALOGUE)
Total Food Intake (TFI) (g/4weeks)	96.2±12.27	179.7±13.31	192.0±23.56
Gain in body wt. (g/4wks)	-9.2±1.83	39.3±4.03	37.8±13.42
% Dry Matter Digestibility (DMD)	99.0±0.05	97.2±0.53	95.1±2.14
% Protein Digestibility (PD)	-	91.6±1.71	84.5±6.92
Protein Efficiency Ratio (PER)	-	2.3±0.20	2.0±0.56

Values are mean ± SD of 6 animals in each group.

Note: The results contained in this test certificate relate only to the actual sample submitted for testing sample not drawn by us. This certificate shall not be reproduced for advertisement and not valid for legal purpose.


Authorized Signatory,
Scientist 'F' & Head
Food Chemistry Division