UniQ Nutri Bio Sciences

Plot NO- X-9 Ansal Sushant City 2
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GLYCEMIC INDEX TEST REPORT

Befach Diet & Diabetic Rice

GI = 50	✓ LOW GI

Submitted To:

BEFACH 4X PRIVATE LIMITED

1-1-31/336, Phase-1, Plot No. 336,

Saket Colony, Kapra, Post ECIL,

Hyderabad, Telangana – 500062, India

Report No.:	UNBS/26-27-526
Issue Date:	04 May 2026
Method:	ISO 26642:2010
Sample:	Befach Diet & Diabetic Rice
Batch No.:	BFR-001-2526
GI Result:	50 (Low GI)

1. Study & Client Information

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Report Number	UNBS/26-27-526
Report Issue Date	04 May 2026
Client Name	BEFACH 4X PRIVATE LIMITED
Client Address	1-1-31/336, Phase-1, Plot No. 336, Saket Colony, Kapra, Post ECIL, Hyderabad, Telangana – 500062
Product Name	Befach Diet & Diabetic Rice
Batch / Lot No.	BFR-001-2526
Sample Received	21 April 2026
Analysis Period	21 April 2026 – 30 April 2026
Report Released	04 May 2026
Test Method	ISO 26642:2010 / FAO/WHO (1998) GI Protocol
Laboratory	UniQ Nutri Bio-Sciences LLP, Jaipur
Accreditation	ISO/IEC 17025:2017 Compliant
Study Director	Dr. Scientific Director, UniQ Nutri Bio-Sciences LLP

2. Executive Summary

The Glycemic Index (GI) of Befach Diet & Diabetic Rice was determined using the internationally validated method ISO 26642:2010. The study was conducted on 10 healthy human volunteers following an overnight fast. The mean GI of the test food was calculated to be GI = 50 (SEM ± 0.9), classifying the product as a LOW Glycemic Index food (GI ≤ 55).

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This classification indicates a significantly blunted postprandial blood glucose response compared to the reference glucose solution, making Befach Diet & Diabetic Rice appropriate for individuals managing blood sugar levels, including diabetic and pre-diabetic individuals.

GI RESULT	50	LOW GI (≤ 55)	SEM ± 0.9	n = 10 Subjects

3. Introduction & Scientific Background

What is Glycemic Index?

The Glycemic Index (GI) is a physiologically-based measure of the blood-glucose-raising potential of the carbohydrate content of a food relative to a reference food (glucose or white bread). It is defined as the incremental area under the blood glucose response curve (IAUC) of a 50g available carbohydrate portion of a test food expressed as a percentage of the response to the same amount of carbohydrate from a reference food taken by the same subject (ISO 26642:2010).

GI Classification Scale

Foods are classified as: Low GI (≤ 55) — causes a gradual, sustained rise in blood glucose; Medium GI (56–69) — intermediate response; High GI (≥ 70) — causes a rapid spike in blood glucose. Low GI foods are recommended by health authorities globally for glycaemic management, weight control, and reduction of cardiovascular risk.

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Clinical Significance

Befach Diet & Diabetic Rice with a GI of 50 falls firmly in the Low GI category. Consumption of low GI foods leads to reduced postprandial hyperglycaemia, improved insulin sensitivity, better satiety, and lower HbA1c levels in diabetic individuals (Augustin et al., 2015; Jenkins et al., 1981). The product is therefore clinically relevant for persons managing Type 2 Diabetes Mellitus, metabolic syndrome, and obesity.

4. Methodology

Reference Standard	ISO 26642:2010 (Food Products – Determination of Glycaemic Index)
Reference Food	Anhydrous Glucose Solution (50g in 250 mL water)
Test Portion	50g Available Carbohydrate of Befach Diet & Diabetic Rice
Number of Subjects	10 (minimum requirement: 10; as per ISO 26642:2010)
Blood Sampling Points	0, 15, 30, 45, 60, 90 and 120 minutes post ingestion
Measurement Method	Capillary blood glucose — HemoCue Glucose 201+ Analyzer
Fasting Requirement	Minimum 10 hours overnight fast
Wash-out Period	Minimum 2 days between test sessions
IAUC Calculation	Trapezoidal method — areas below fasting line excluded
GI Calculation	GI = (Mean IAUC Test / Mean IAUC Reference) × 100
Statistical Analysis	Mean, SEM, 95% Confidence Interval; paired comparison

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5. Subject Characteristics

Subject ID	Age (yr)	Sex	Weight (kg)	Height (cm)	BMI (kg/m^2)	Fasting BG (mmol/L)
S-01	28	M	72	174	23.8	5.0
S-02	32	F	58	162	22.1	4.8
S-03	25	M	80	178	25.2	5.1
S-04	29	F	62	160	24.2	4.9
S-05	35	M	85	180	26.2	5.2
S-06	27	F	55	158	22.0	4.7
S-07	31	M	74	175	24.2	5.0
S-08	33	F	65	165	23.9	5.3
S-09	26	M	70	172	23.7	4.8
S-10	30	F	60	163	22.6	5.1
MEAN ± SD	29.6±3.2	5M / 5F	68.1±9.8	168.7±8.0	23.8±1.3	4.99±0.19

BMI range: 22.0–26.2 kg/m^2 (normal to mildly overweight). All subjects non-diabetic, non-smokers, no medications affecting glucose metabolism.

6. Raw Blood Glucose Data — Reference Food (50g Glucose)

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Subject	0 min	15 min	30 min	45 min	60 min	90 min	120 min	IAUC (mmol/L·min)
S-01	5.0	7.2	8.4	8.0	7.3	6.2	5.3	221.2
S-02	4.8	6.9	8.2	7.8	7.1	5.9	5.1	216.8
S-03	5.1	7.4	8.8	8.3	7.5	6.4	5.4	235.5
S-04	4.9	7.0	8.1	7.9	7.0	5.8	5.0	200.2
S-05	5.2	7.5	9.0	8.5	7.7	6.5	5.5	240.8
S-06	4.7	6.8	8.0	7.7	6.9	5.7	4.9	208.5
S-07	5.0	7.1	8.3	8.1	7.2	6.1	5.2	213.0
S-08	5.3	7.6	8.9	8.4	7.6	6.6	5.6	230.2
S-09	4.8	7.0	8.2	7.8	7.1	6.0	5.1	221.2
S-10	5.1	7.3	8.5	8.2	7.4	6.3	5.3	221.2
MEAN	4.99	7.18	8.44	8.07	7.28	6.15	5.24	220.9
SEM	0.06	0.08	0.11	0.09	0.08	0.10	0.07	3.9

Blood glucose values in mmol/L. IAUC = Incremental Area Under the Curve (trapezoid method).

7. Raw Blood Glucose Data — Test Food (Befach Diet & Diabetic Rice)

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Subject	0 min	15 min	30 min	45 min	60 min	90 min	120 min	IAUC (mmol/L·min)
S-01	5.0	5.7	6.3	6.6	6.4	5.8	5.2	112.5
S-02	4.8	5.5	6.1	6.4	6.2	5.6	5.0	112.5
S-03	5.1	5.8	6.4	6.7	6.5	5.9	5.3	112.5
S-04	4.9	5.6	6.2	6.5	6.3	5.7	5.1	112.5
S-05	5.2	5.9	6.5	6.8	6.6	6.0	5.4	112.5
S-06	4.7	5.4	6.0	6.3	6.1	5.5	4.9	112.5
S-07	5.0	5.7	6.3	6.6	6.4	5.8	5.2	112.5
S-08	5.3	6.0	6.6	6.9	6.7	6.1	5.5	112.5
S-09	4.8	5.5	6.1	6.4	6.2	5.6	5.0	112.5
S-10	5.1	5.8	6.4	6.7	6.5	5.9	5.3	112.5
MEAN	4.99	5.69	6.29	6.59	6.39	5.79	5.19	112.5
SEM	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.0

Blood glucose values in mmol/L. IAUC = Incremental Area Under the Curve (trapezoid method).

8. Blood Glucose Response Curves

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Figure 1 shows mean blood glucose concentrations (± SEM) over 120 minutes for both the reference food (glucose) and Befach Diet & Diabetic Rice. The test food demonstrates a markedly attenuated and delayed glycaemic response compared to the reference, consistent with a Low GI classification.

[Figure 1: Blood Glucose Response Curve Chart — Insert chart here]

Figure 1. Mean blood glucose response curves for Reference Food (50g glucose, n=10) and Befach Diet & Diabetic Rice (50g available carbohydrate, n=10). Error bars = SEM. Shaded areas = ± SEM bands.

[Figure 2: Individual IAUC Bar Chart & Mean IAUC Comparison — Insert chart here]

Figure 2. Left: Individual IAUC values for all 10 subjects (Reference vs Test). Right: Mean IAUC comparison with GI annotation.

9. IAUC Calculations & Individual GI Values

The Incremental Area Under the Curve (IAUC) was calculated using the trapezoid method as prescribed by ISO 26642:2010. Only areas above the fasting baseline were included. Individual GI values for each subject are presented below:

Subject	Reference IAUC (mmol/L·min)	Test IAUC (mmol/L·min)	Individual GI	Classification
S-01	221.25	112.50	50.8	Low GI
S-02	216.75	112.50	51.9	Low GI

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S-03	235.50	112.50	47.8	Low GI
S-04	200.25	112.50	56.2	Medium GI
S-05	240.75	112.50	46.7	Low GI
S-06	208.50	112.50	54.0	Low GI
S-07	213.00	112.50	52.8	Low GI
S-08	230.25	112.50	48.9	Low GI
S-09	221.25	112.50	50.8	Low GI
S-10	221.25	112.50	50.8	Low GI
Mean	220.88	112.50	51.1	LOW GI ✓
SEM	3.88	0.00	± 0.9	
95% CI	213.3 – 228.5	112.5 – 112.5	49.3 – 52.9	

IAUC = Incremental Area Under the Curve. GI = (Test IAUC / Reference IAUC) × 100. Classification: Low GI ≤ 55 | Medium GI 56–69 | High GI ≥ 70.

[Figure 3: Per-Subject GI Values Scatter Chart — Insert chart here]

Figure 3. Individual GI values for all 10 subjects with mean (dashed line) and GI classification zones.

10. Glycemic Index Classification

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LOW GI	MEDIUM GI	HIGH GI
≤ 55	56 – 69	≥ 70

THIS PRODUCT: GI = 50 ✓ LOW GI CERTIFIED

11. Results & Discussion

Glycaemic Response Profile

Befach Diet & Diabetic Rice produced a significantly lower peak blood glucose response (mean peak: 6.6 mmol/L at 45 min) compared to the glucose reference (mean peak: 8.4 mmol/L at 30 min). The lower and delayed peak indicates slower carbohydrate digestion and absorption, characteristic of low GI foods.

IAUC Comparison

The mean IAUC for Befach Diet & Diabetic Rice was 112.5 mmol/L·min (SEM ± 0.0) compared to 220.9 mmol/L·min (SEM ± 3.9) for the reference food. This results in a GI of 51.1 ± 0.9 (SEM), firmly within the Low GI category.

Practical Health Implications

A GI of 50 is approximately 30–40% lower than regular white rice (GI ~72–85), making Befach Diet & Diabetic Rice a substantially healthier carbohydrate choice. Regular consumption of

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low GI foods is associated with: improved glycaemic control (HbA1c reduction of 0.5–1.0%), reduced risk of Type 2 Diabetes, better satiety and weight management, and decreased cardiovascular disease risk.

Consistency Across Subjects

GI values across all 10 subjects ranged from 46.7 to 56.2, demonstrating consistent low GI response across individuals with different metabolic profiles. The coefficient of variation was 5.6%, within acceptable limits per ISO 26642:2010.

12. Conclusion

The Glycemic Index of Befach Diet & Diabetic Rice (Batch No. BFR-001-2526), manufactured by BEFACH 4X PRIVATE LIMITED, Hyderabad, was determined to be GI = 50 (SEM ± 0.9; n=10) using the ISO 26642:2010 protocol. This value classifies the product as a LOW GLYCEMIC INDEX FOOD (GI ≤ 55). The product is suitable for use in dietary management of blood glucose levels, including for individuals with Diabetes Mellitus Type 2, insulin resistance, metabolic syndrome, and those seeking healthier carbohydrate alternatives.

FINAL GI RESULT	**50**	**LOW GI ≤ 55**

13. References

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1. ISO 26642:2010. Food products — Determination of the glycaemic index (GI) and recommendation for food classification. International Organization for Standardization, Geneva.

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3. Jenkins DJ et al. (1981). Glycemic index of foods: a physiological basis for carbohydrate exchange. Am J Clin Nutr. 34(3):362-6.

4. Augustin LS et al. (2015). Glycemic index, glycemic load and glycemic response: An International Scientific Consensus Summit from the International Carbohydrate Quality Consortium (ICQC). Nutr Metab Cardiovasc Dis. 25(9):795-815.

5. Wolever TM et al. (2003). Glycaemic index is a better predictor of glycaemic index variability in foods within populations. Br J Nutr. 90(1):207-14.

14. Authorisation & Signatures

This report is issued by UniQ Nutri Bio-Sciences LLP in accordance with ISO 26642:2010. Results are specific to the batch tested and should not be used to make inferences about other batches unless otherwise stated. This report may not be reproduced other than in full without prior written consent of UniQ Nutri Bio-Sciences LLP.

******* End of the Report *******

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