

**MADAN BHANDARI
UNIVERSITY OF
SCIENCE AND TECHNOLOGY**

Chitlang, Thaha Municipality Ward 9, Bagmati Province
Clarification No. 1

Date: April 23, 2026 (Baisakh 10, 2083)

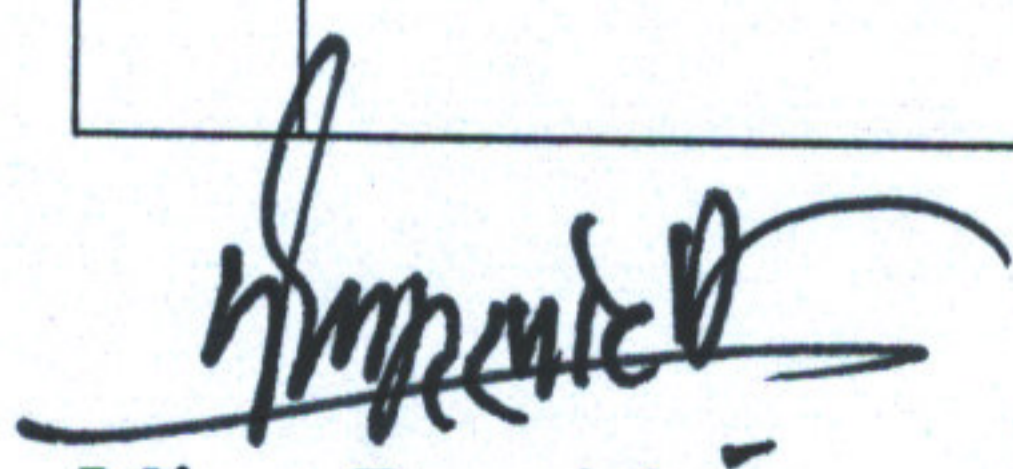
This is to notify all concerned that MBUST, Chitlang, Thaha Municipality has made the following clarifications on the queries of the bidders to the Bidding Documents for the Procurement of Laboratory Equipment for GATC Lab), Contract Identification No. MBUST/G/NCB/04/2082/83 published on April 01, 2025, Wednesday (Chaitra 18, 2082) in the "Karoobar" Daily Newspaper.

Item no 2: Real-Time PCR System

S. N	Parameter	Client's Specification	Query from the Bidder	Response from the Purchaser
F	Temperature Lid	In the range of 30-110°C	In the range of 50-110 °C	We need lower lid temperature for low temperature protocols for our experiments from time to time.
G	Temperature Accuracy, °C	Maintains ± 0.2 °C accuracy when operating at a programmed temperature of 90 °C	Maintains ± 0.25 °C accuracy when operating at a programmed temperature of 90 °C	Temperature accuracy is of utmost importance in real-time PCR, especially in experimental optimization of plant gene expression and RNA sequencing validation. Even small increases in variability (± 0.25 °C) can affect Ct reproducibility and quantification precision.
H	Temperature Uniformity, °C	Temperature consistency across wells maintained at ± 0.3 °C within 10 seconds after attaining the target	Temperature consistency across wells maintained at ± 0.4 °C within 10 seconds after attaining the target.	Uniform temperature distribution across wells is critical for multi-sample comparative gene expression studies. A uniformity of ± 0.3 °C is required to ensure reliable and reproducible experimental outcomes.

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S. N	Parameter	Client's Specification	Query from the Bidder	Response from the Purchaser
I	Gradient Operational range, °C	Gradient operation available within the 30–100 °C range	The 96-well sample block is made up of at least 6 separate Peltier elements (Known as VeriFlex Blocks). The maximum temperature difference that can be programmed across the block is 25 °C. The maximum difference in temperature allowed between adjacent blocks is 5°C.	Gradient specification must remain generic.
Q	Sample size	Minimum: 1 µl Maximum: 50 µl	Minimum: 10 µl Maximum: 100 µl	We are an experimental laboratory. We do optimization and sometimes we need lower volume. The laboratory performs assay optimization and method development; therefore, the system must support low-volume reactions to ensure flexibility and cost-effective use of reagents.
S	Applications	Should be able to perform the gene expression analysis, end-point analysis in the detection of the sequence, assay of protein thermal shifts, as well as optimizing assays with the use of thermal gradient, and there should be no requirement of the use of ROX in gene expression analysis.	And there should be option for use of any passive reference dye (ROX) for gene expression analysis as per customer requirement and QC requirement.	ROX independent experiments is highly essential. Minor changes: The specification does not reject use of ROX reference dye. However, the experiments should be independent of ROX reference dye. requirement as additional dyes will make individual experiments more complex and expensive.


Vice President



