ITEM NO-5

Pyro sequencing based Quantitative analyzer for SNP detection & Methylation analysis

SNP Analyzer / Genotyping platform:

1. Proven technology for real-time, sequence-based detection, quantification of SNP and should able to use the system for microbial identification as well. Genetic testing epigenetic methylation quantitation should also be possible in the most fastest (less than 60mins) and economical way.
2. System should be supported with multiple ready to use assays and kits to use it in various applications.
3. System should be dedicated for short read lengths i.e. around 80-100 bp length.
4. Should be capable of running 24-48 samples with prompt analysis of result within 1 hour.
5. Special application for Microbial Identification to discover species specific region of microbes and rare mutations.
6. Special application for clonal identification and quantification of successful cloning.
7. The system should provide a sequencing platform, sample preparation workstation, and reagents and controls.
8. System should come with comprehensive and flexible analysis software for assay designing and analysis.

Additionally, applications: -

9. Reliable quantification of allele representation and methylation status for short read-lengths.
10. System should be able to combine Methylation analysis with SNP genotyping in one assay with exact reliable prediction of percentage of methylation at a particular spot.
11. The system should be suited for the discovery and analysis of di-, tri- or tetra allelic mutations as well as analysis and quantification of consecutive CpG sites.
12. It should allow to standardize primers and probes and a dedicated software with all possible combinations with hit ratio should be available to enable the user to choose the most optimized set of primers and sequencing primer.
13. It should be open to standardize sequence information and vendor should provide all the reagents and consumables to support standardization.
14. System should be backed up with the publication for all applications it claims to perform.