Supplementary Information for:

**Modulatory effects of Phytobiotic, *Moringa oleifera* fed Gut Microbiota in Chicken models and Biological characteristics of the metabolites – A Metagenomics analysis**

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**Supplementary Figures**

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# Supplementary Tables

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Supplementary Table 4. Phylum abundance distribution of gut metagenomes

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Supplementary Table 8. Beta diversity profile

Supplementary Table 9. Functional Analysis- KEGG category L1 & L2

Supplementary Table 10. Metagenome predictions\_ KEGG category

Supplementary Table 11. Functional Analysis – COG category

Supplementary Table 12. Metagenomes predictions\_COG category

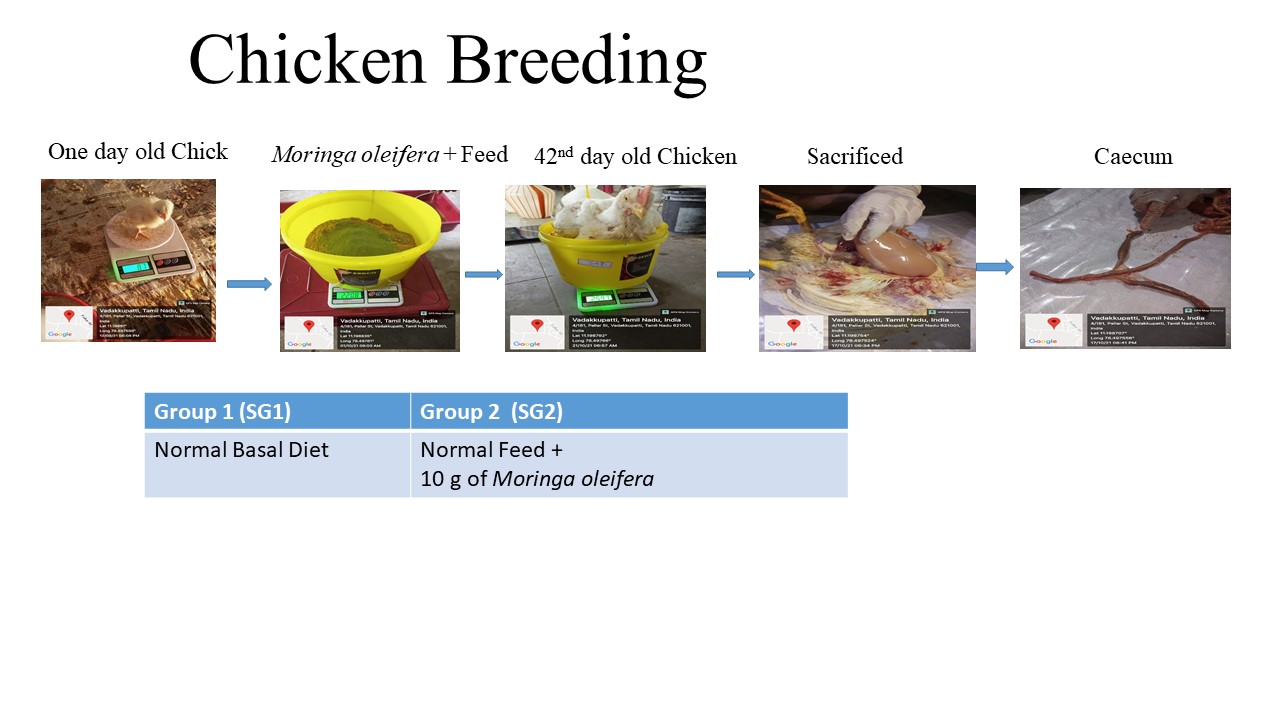
Supplementary Table 13. Antibacterial activity & Minimal inhibitory concentration

Supplementary Table 14. Antioxidant assay

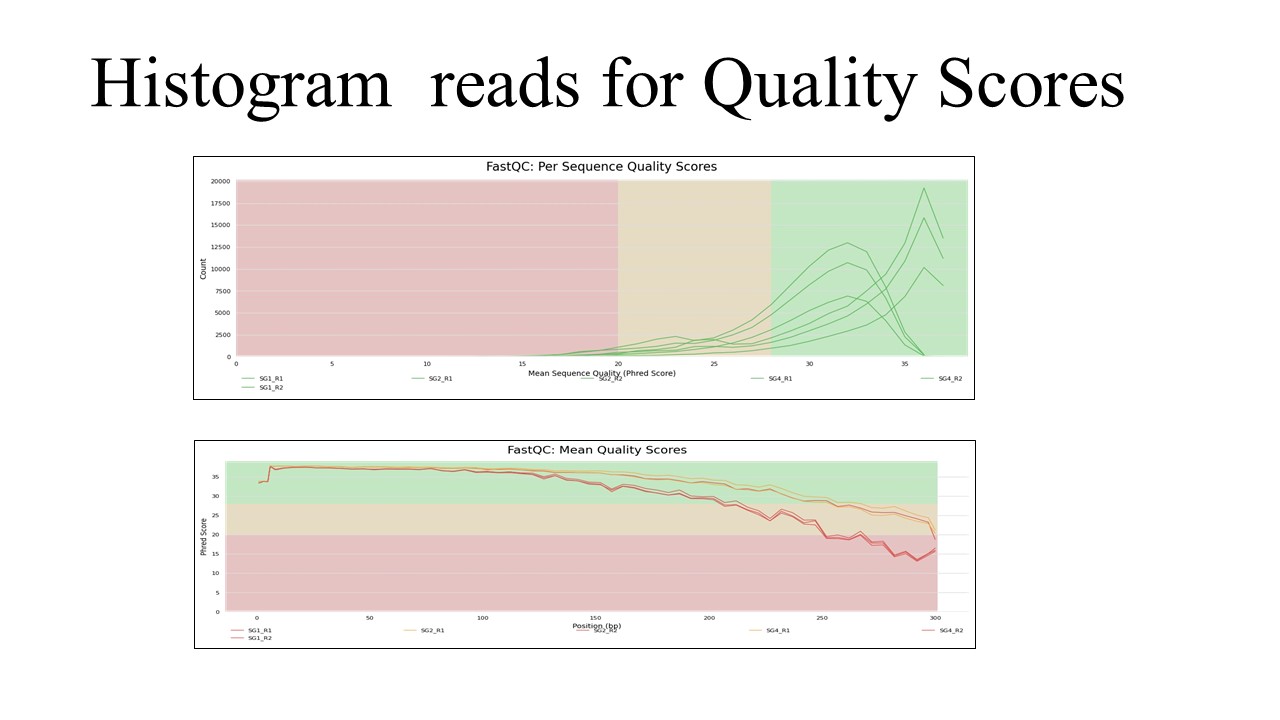
Supplementary Table 15. Anticancer activity MTT assay

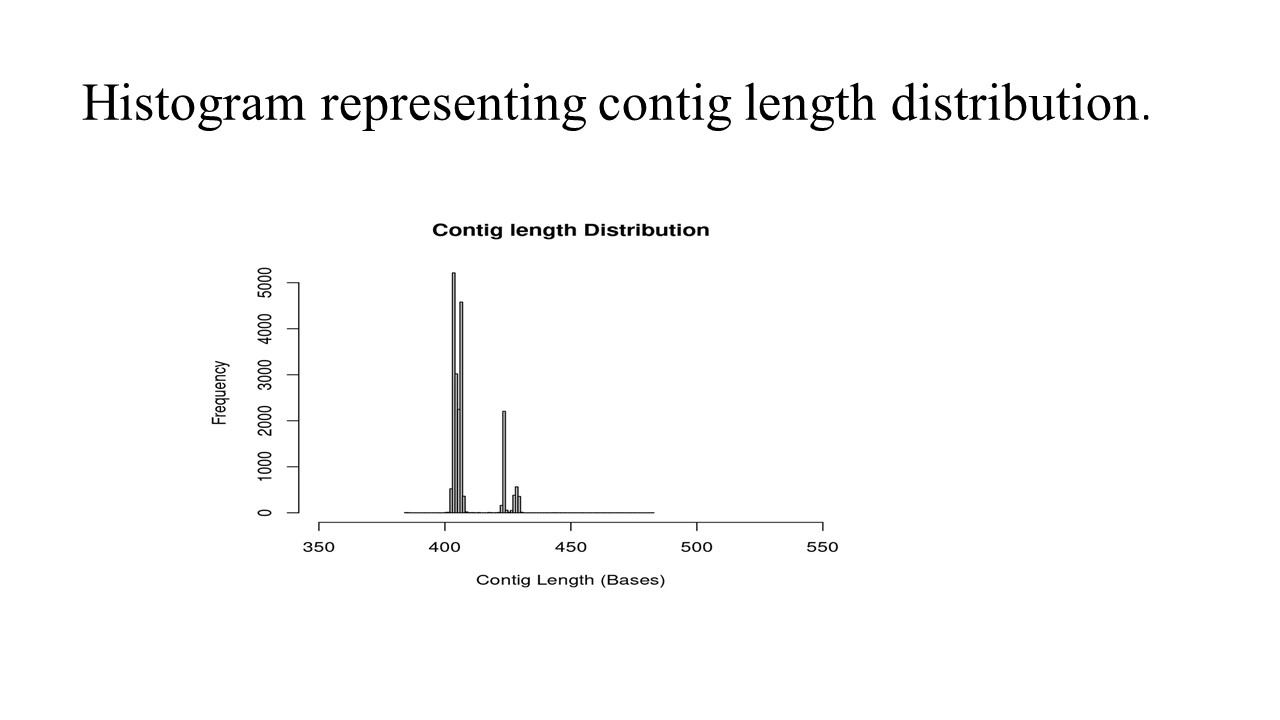


**Supplementary Figure 1: Plant collection to prepare MOLP**

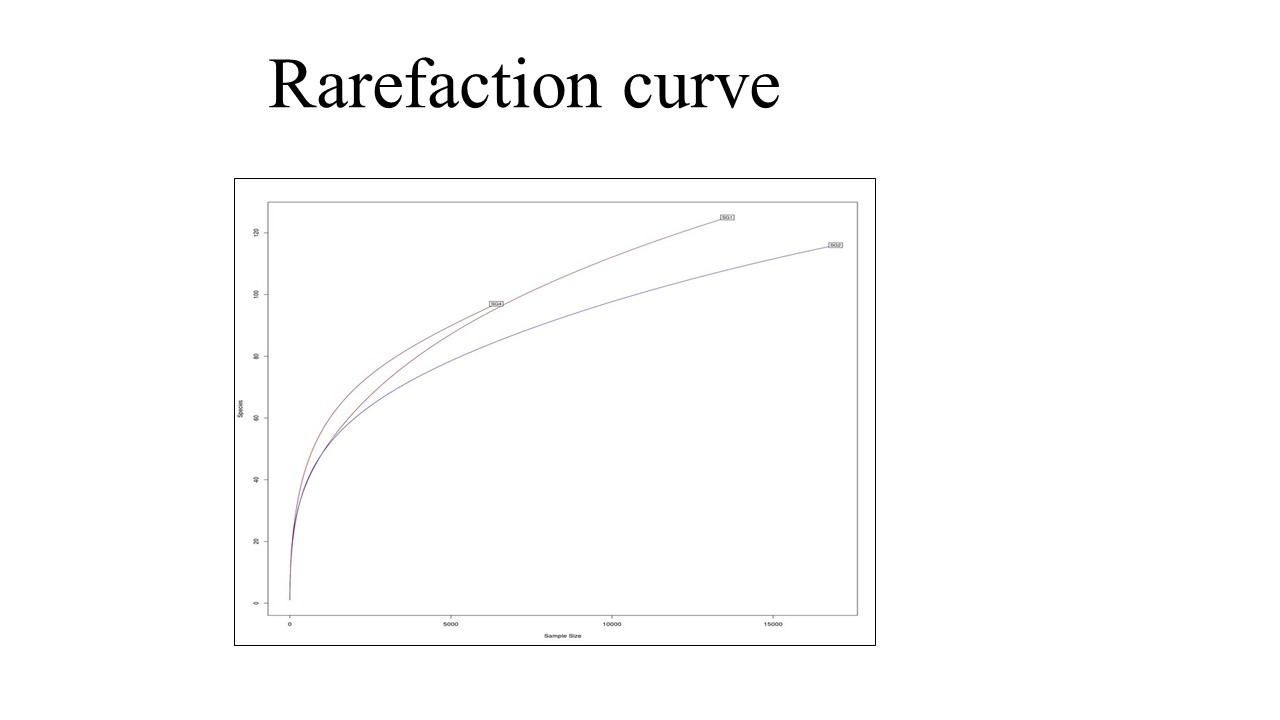


**Supplementary Figure 2: Experimental design of birds**

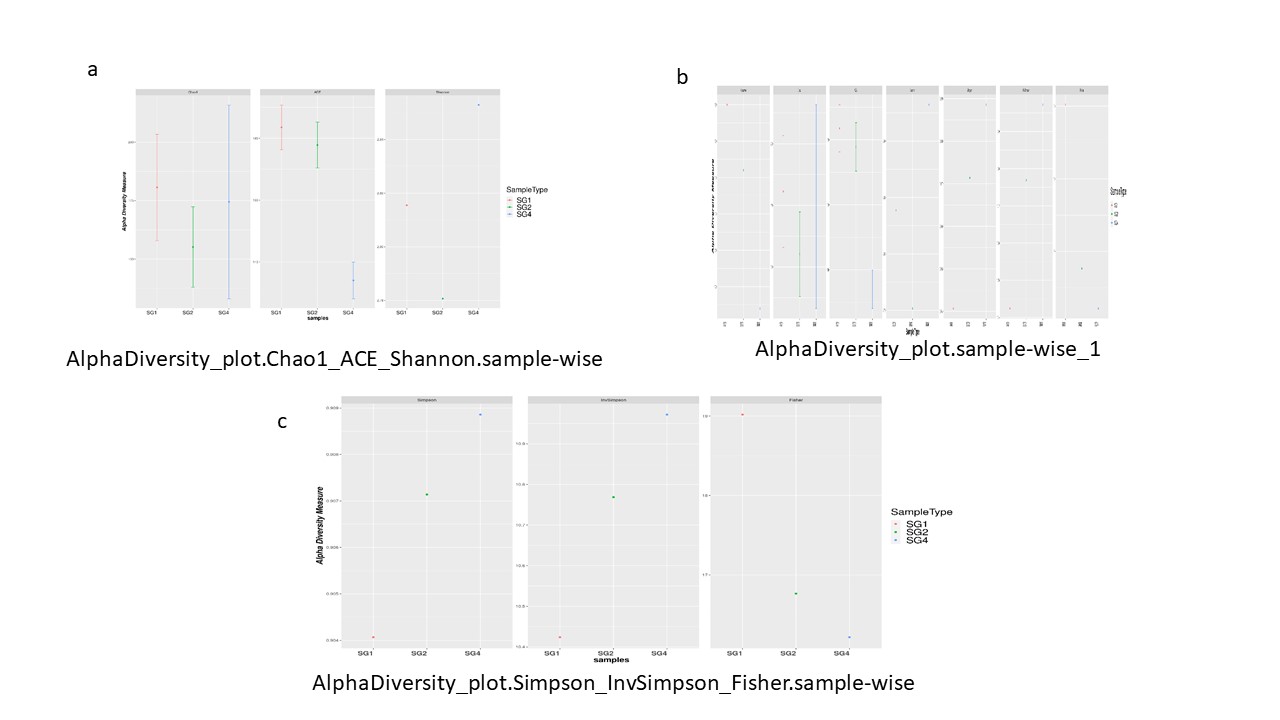
**Supplementary Figure 3.** Histogram of reads with average sequence & base quality scores

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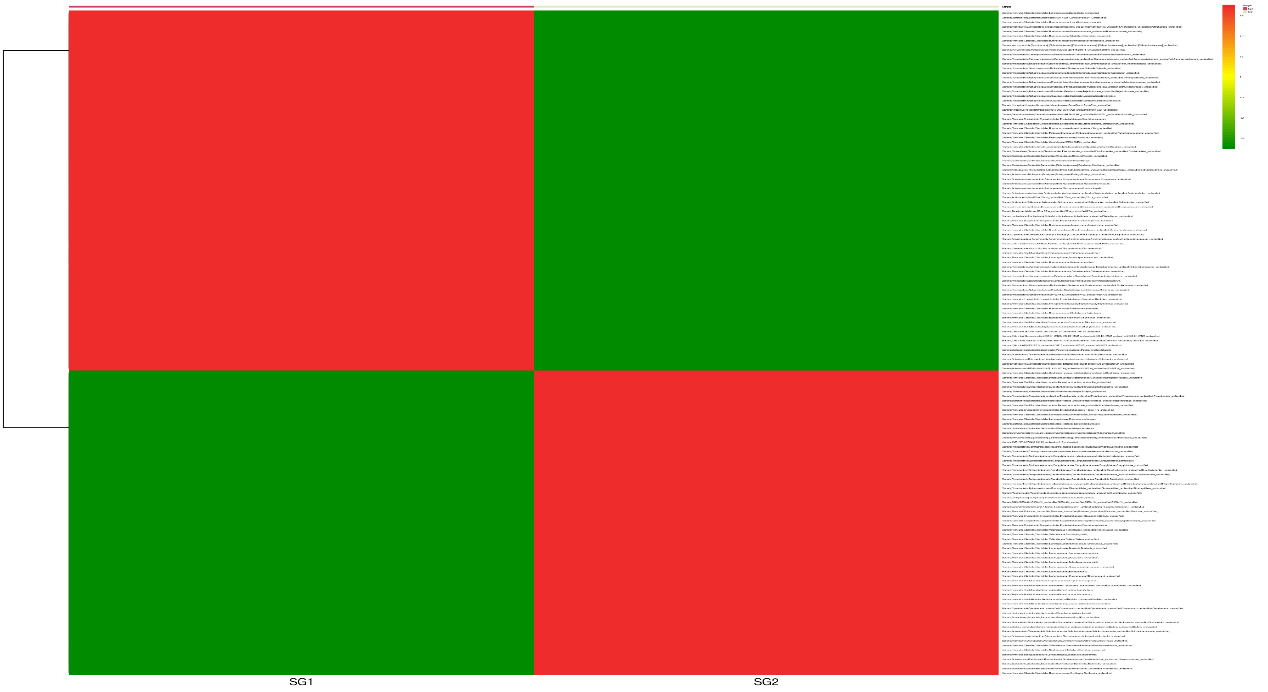
**Supplementary Figure 4. Histogram representing contig length distribution**

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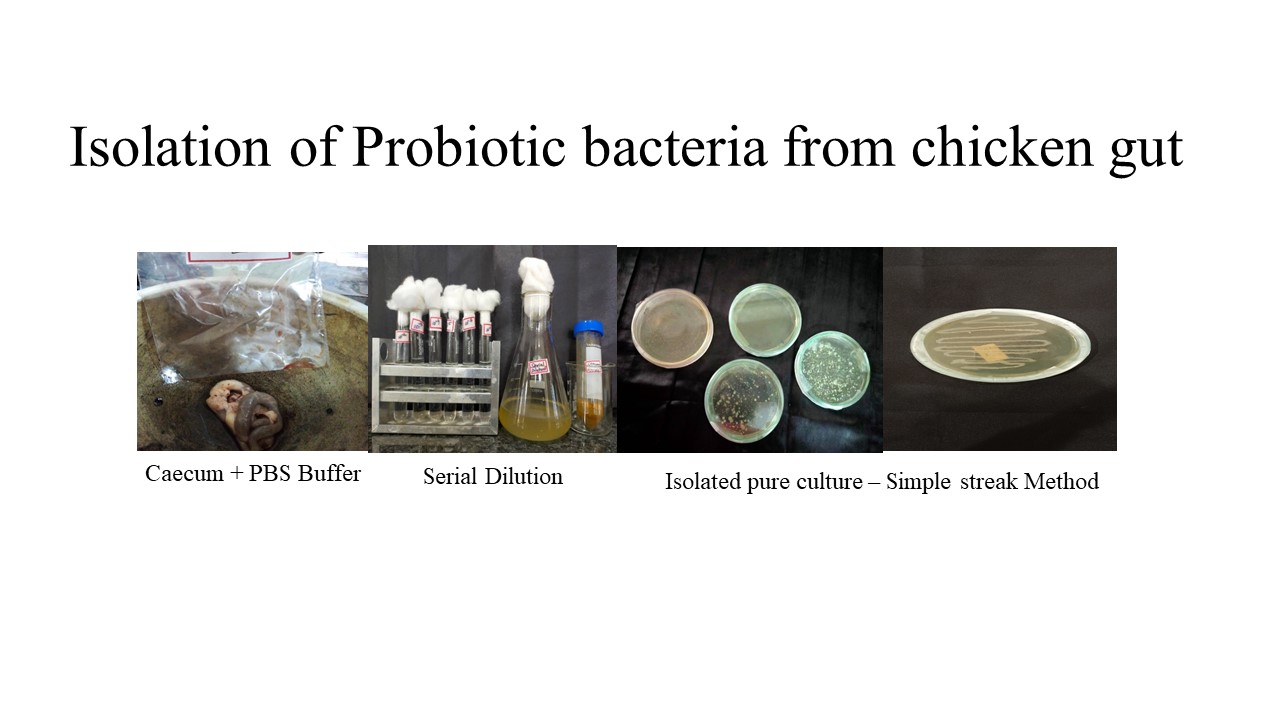
**Supplementary Figure 5. Rarefaction curve**

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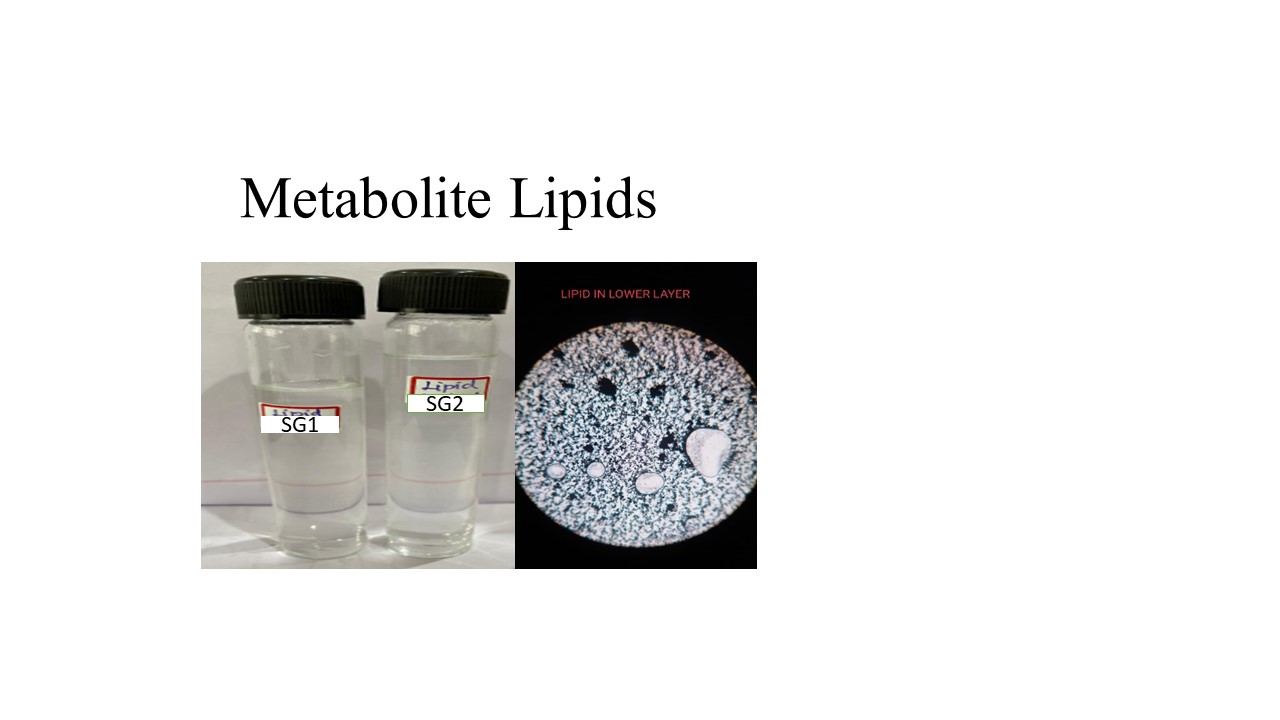
**Supplementary Figure 6. Alpha diversity analysis**

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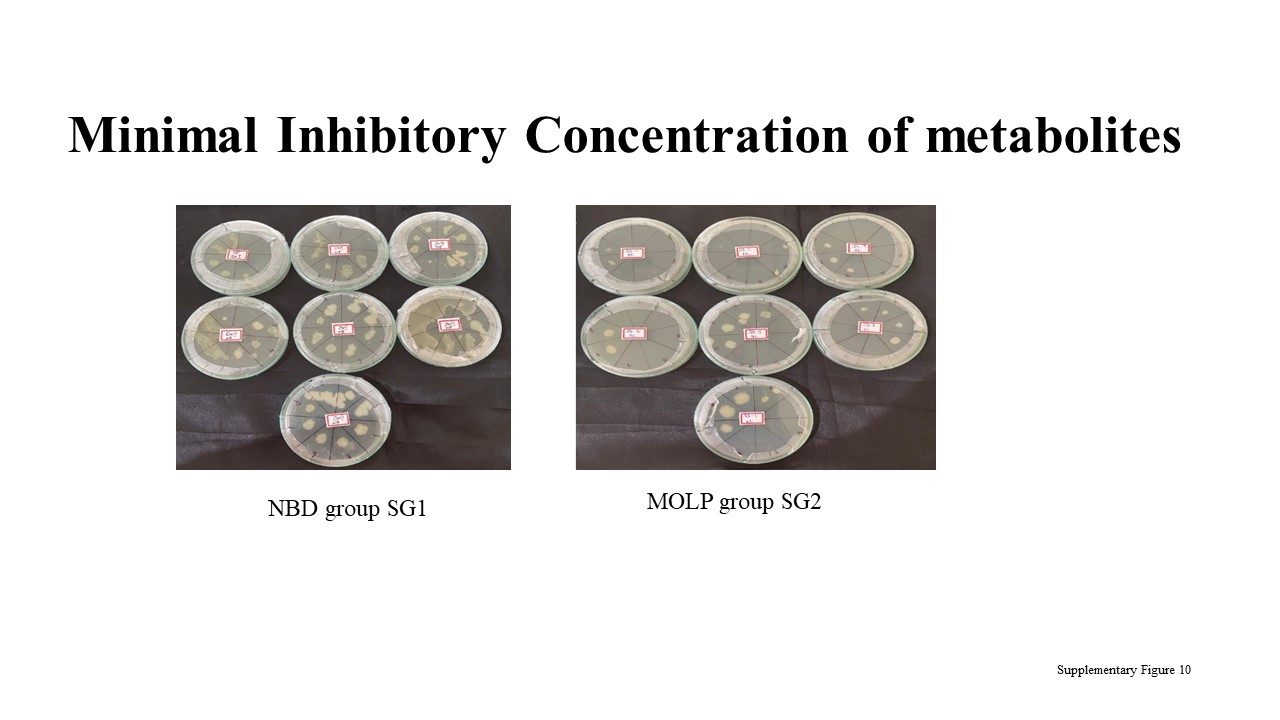
**Supplementary Figure 7. Beta diversity**

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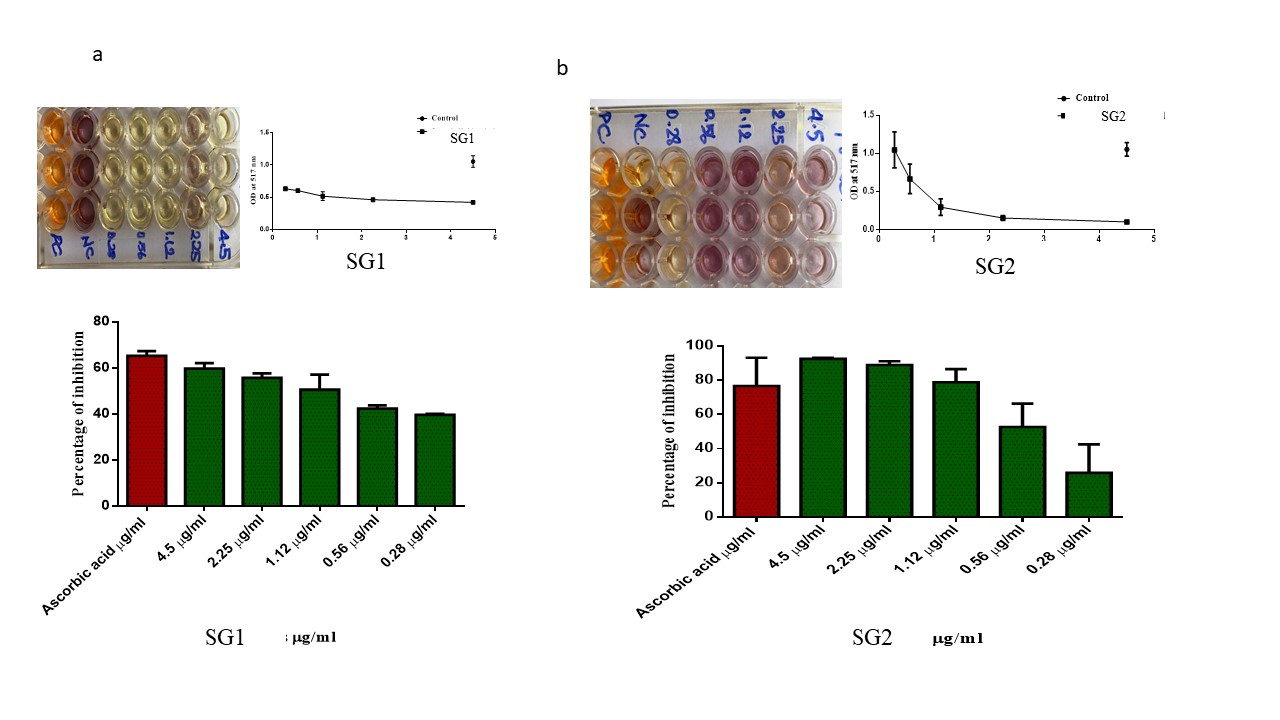
**Supplementary Figure 8. Isolation of Probiotic bacteria from chicken gut**

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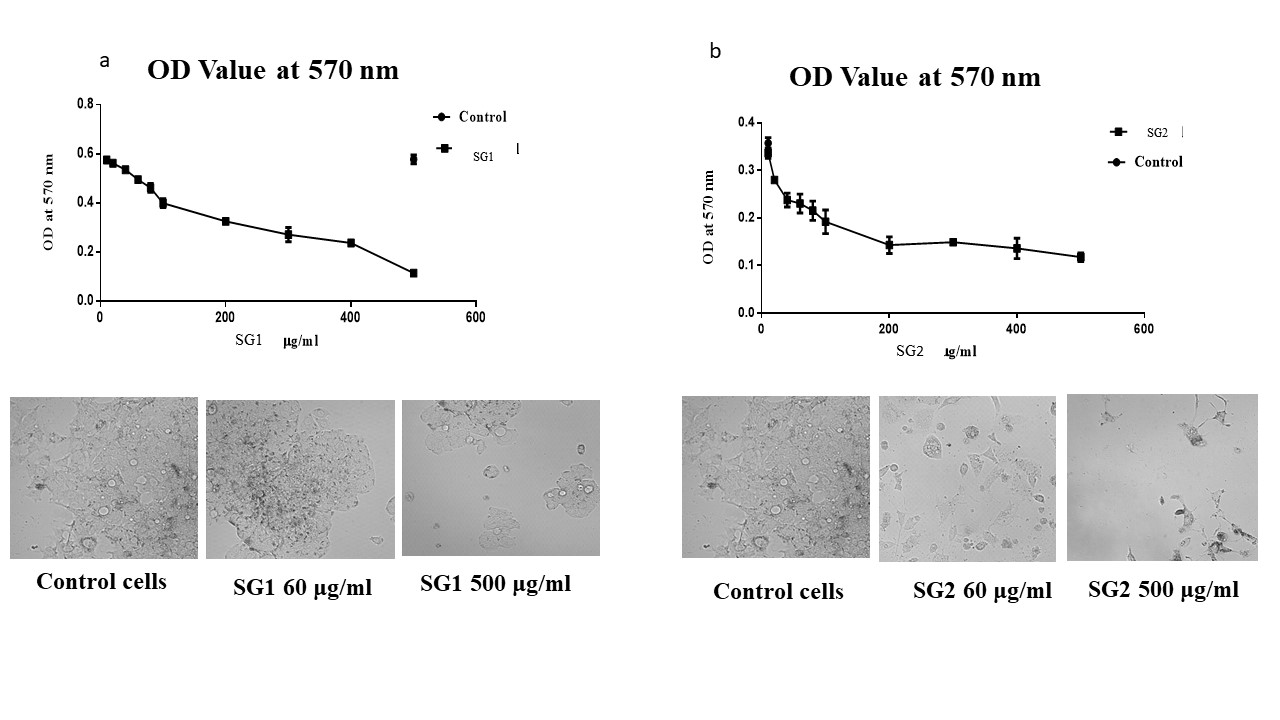
**Supplementary Figure 9. Isolation and identification of metabolite lipids**

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**Supplementary Figure 10. Minimal inhibitory Concentration**

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**Supplementary Figure 11. Antioxidant activity**

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**Supplementary Figure 12. Anticancer Activity –MTT Assay a) Normal basal diet group SG1 b) MOLP treated group SG2**