

**Antibacterial activity studies of *Garcinia mangostana* against Methicillin-Resistant *Staphylococcus aureus* (MRSA)**

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**Abstract**

Extracts and pure compounds from the leaves and root bark of *Garcinia mangostana* were subjected to anti microbial assay with special reference to methicillin resistant *Staphylococcus aureus* (MRSA) using an agar dilution method. Results indicated activity of number of extracts against 15 MRSA strains. Activity guided fractionation showed that their activity is mainly-due to the presence of  $\gamma$ -mangostin and  $\alpha$ -mangostin. They showed activity at lower concentrations such as 0.39 and 1.56  $\mu\text{g/ml}$  for 20 strains. According to the above experiments, other than  $\alpha$ -mangostin,  $\gamma$ -mangostin also appears to hold promise as an anti-microbial agent in the treatment of infections with *S. aureus* including MRSA, and should be investigated further in appropriate *in vivo* models.

**Keywords:** *Garcinia mangostana*, antibacterial, *Staphylococcus aureus*.