## **IR-PERPUSTAKAAN UNIVERSITAS AIRLANGGA**

## ABSTRACT

## The Antibacterial Activity of Aqueous Extract of Roselle Flower (*Hibiscus sabdariffa* L.) and Mango Honey Mixture against Streptococcus mutans

## Sayyidati Ma'rufah

*Streptococcus mutans* is a Gram-positive bacterium known as the main cause of dental caries. Dental caries can be prevented by mechanical way such as brushing teeth and applying antibacterial activity agents. The aqueous extract of roselle flower and mango honey had antibacterial activity that has been proven in various studies. The objectives of this study were to determine MIC of aqueous extract of roselle flower, MIC of mango honey re, to determine the optimal ratio of combination of aqueous extract of roselle flower and mango honey that generate maximum antibacterial activity and to determine the MIC of the combination. The antibacterial activity test was performed by agar diffusion method and Clindamycin used as reference substance. The MIC of aqueous extract of roselle calyx wa 6 0,6%, the MIC of mango honey was 17,50%. The optimal ratio of the combination was 1:9 that consisted of 10 mg/ml (1%) roselle petals water extract and 50% concentration of mango honey. The MIC of the optimal ratio combination 1:9 was 25%.

**Keywords**: antibacterial activity, *Streptococcus mutans*, aqueous extract of roselle petals, mango honey