

# Egyptian Propolis: 1-Antimicrobial Activity and Chemical Composition of Upper Egypt Propolis

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The antimicrobial activity of four propolis samples collected from Upper Egypt against *Staphylococcus aureus*; *Escherichia coli* and *Candida albicans* was evaluated. There was a variation in the antimicrobial activity according to the propolis origin. Banisweif propolis showed the highest antimicrobial activity against *Staphylococcus aureus*, *Escherichia coli* and *Candida albicans*, but Fayoum propolis had moderate activity against all tested pathogens. Propolis collected from Assiut and Souhag gave lower antimicrobial activity.

Propolis samples were investigated by GC/MS, 71 compounds were identified, 14 being new for propolis. Banisweif propolis is characterized by the presence of 7 caffeate esters and 4 triterpenoids. Fayoum propolis showed the highest amount of lactic acid and the presence of 3 chalcones. But Assiut propolis is characterized by the presence of 4 prenylated coumarates. Souhag propolis is characterized by the presence of 5 aliphatic dicarboxylic acids and some other new compounds to propolis.