

# Chemical Composition and Antimicrobial Activity of European Propolis

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Three propolis samples from Austria, Germany and France were investigated by GC/MS, where eleven compounds were being new for propolis. The samples showed some similarities in their qualitative composition. Phenylethyl-*trans*-caffeate, benzyl ferulate and galangin were predominant in German propolis. Benzyl caffeate was predominant in French sample. Pino-cembrin was predominant in French and Austrian propolis and *trans*-p-coumaric acid was predominant in all samples.

The antimicrobial activity against *Staphylococcus aureus*; *Escherichia coli*, and *Candida albicans* was evaluated. German propolis showed the highest antimicrobial activity against *Staphylococcus aureus* and *Escherichia coli*. While Austrian propolis has the highest activity against *Candida albicans*. French propolis was effective against all pathogens but less than German and Austrian propolis.