

**PENGARUH DAYA ANTIBAKTERI EKSTRAK KULIT NANAS  
(*Ananas comosus*) TERHADAP BAKTERI *Fusobacterium  
nucleatum* PENYEBAB GINGIVITIS  
(*in vitro*)**

***Intisari***

**Latar belakang :** *Gingivitis* adalah penyakit yang sering ditemukan di rongga mulut. Salah satu penyebabnya adalah bakteri *Fusobacterium nucleatum*. *Fusobacterium nucleatum* adalah bakteri gram-negatif fakultatif anaerob. Nanas (*Ananas comosus*) adalah salah satu buah yang dapat ditemukan di seluruh Indonesia. Namun, kulit nanas (*Ananas comosus*) tidak digunakan, padahal kulit nanas (*Ananas comosus*) mengandung enzim bromelain dan flavonoid yang mencegah pertumbuhan bakteri.

**Tujuan :** Tujuan dari penelitian ini adalah untuk menentukan kadar hambat minimum dan kadar bunuh minimum dari ekstrak kulit nanas (*Ananas comosus*) terhadap pertumbuhan bakteri *Fusobacterium nucleatum*.

**Metode :** Jenis penelitian ini adalah penelitian eksperimental laboratorium murni *in vitro*. Subjek dalam penelitian ini adalah ekstrak kulit buah nanas (*Ananas comosus*) dan bakteri *Fusobacterium nukleatum*. Uji antibakteri dilakukan dengan metode dilusi cair pada media BHI dan dilusi padat pada media TSA. Ekstrak kulit nanas (*Ananas comosus*) dilusikan secara berurutan menjadi beberapa konsentrasi: 100%, 50%, 25%, 12,5%, 6,25%, 3,125%, 1,56%, dan 0,78%. Kadar hambat minimum dan kadar bunuh minimum ditentukan dengan mengamati pertumbuhan *Fusobacterium nukleatum* pada kedua media.

**Hasil :** Kadar Hambat Minimum (KHM) adalah 12,5%, sedangkan Kadar Bunuh Minimum (KBM) adalah 25%.

**Kesimpulan :** Ekstrak kulit nanas (*Ananas comosus*) berpengaruh terhadap penghambatan dan pembunuhan *Fusobacterium nucleatum*.

**ANTIBACTERIAL INFLUENCES OF PINEAPPLE (*Ananas comosus*) PEEL  
EXTRACT ON *Fusobacterium nucleatum* BACTERIA CAUSE GINGIVITIS  
(*in vitro*)**

**Abstract**

**Background:** *Gingivitis* is a disease that is often found in oral. The one cause of *gingivitis* is *Fusobacterium nucleatum* bacteria. *Fusobacterium nucleatum* is a gram-negative fakutatif anaerob bacteria. Pineapple (*Ananas comosus*) is a fruit that can be found throughout Indonesia. However, there is no use pineapple (*Ananas comosus*) peel whereas, pineapple (*Ananas comosus*) peel contain bromelain enzymes and flavonoids that are able to inhibit the growth of bacteria.

**Objective:** The purpose of this research was to determine the minimum inhibitory concentration and minimum bactericidal concentration of pineapple (*Ananas comosus*) peel extract on the growth of *Fusobacterium nucleatum*.

**Method :** The type of this research was pure laboratory experimental study *in vitro*. The subject in this research were *Fusobacterium nucleatum* and pineapple (*Ananas comosus*) peel extract. Antibacterial effect test was conducted using liquid dilution method on BHI media and solid dilution on TSA media. Pineapple (*Ananas comosus*) peel extract was serially diluted into some concentrations : 100%, 50%, 25%, 12,5%, 6,25%, 3,125%, 1,56%, and 0,78%. Minimum inhibitory concentration and minimum bactericidal concentration were determined by observing the growth of *Fusobacterium nucleatum* on both media.

**Result :** Minimum Inhibitory Concentration (MIC) was at 12,5%, while Minimum Bactericidal Concentration (MBC) was at 25%.

**Conclusion :** Pineapple (*Ananas comosus*) peel extract was influences in inhibiting and eliminating *Fusobacterium nucleatum*.