

Antibacterial Properties of Dog Saliva Against Streptococcus pyogenes, Staphylococcus aureus, and Escherichia coli for Potential Human Benefits

Pinon, Sofia (School: Socorro High School)

In my project, I explore the potential antibacterial properties in dog saliva on streptococcus pyogenes, staphylococcus aureus, and Escherichia coli. My hypothesis states that the Kirby-Bauer method, using wet inoculation, would demonstrate dog saliva's ability to combat Streptococcus pyogenes and E. coli, but not Staphylococcus aureus and provide needed quantitative data. Surprisingly the Kirby Bauer method didn't support this. My wet inoculation results can now be deemed inconclusive because of insufficient repetitions. In the end, the Kirby-Bauer method confirmed negative results against all bacteria. There is no evidence of antibacterial saliva components providing a defense to these bacteria. In conclusion, caution is advised against allowing dogs to lick wounds or your face on these results.