

# ANTIMICROBIAL POTENTIAL OF SOYBEAN CAKE HYDROLYSATE AGAINST *Staphylococcus aureus*

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Food-borne diseases are of major concern worldwide. Among the predominant bacteria involved in these diseases, *Staphylococcus aureus* is a leading cause of food intoxication resulting from the consumption of contaminated food with staphylococcal enterotoxins, that usually cause gastroenteritis. Different types of agro-industrial waste have been used as a source of raw material in search for natural antimicrobials. The soybean cake is a by-product obtained during the processing of soybean oil, which has good protein content and also appears to be a potential source of bioactive peptides. Therefore, this study assessed the antimicrobial activity of soybean cake hydrolysate against *S. aureus* ATCC 14458. The protein hydrolysate of soybean cake was obtained by enzymatic hydrolysis using commercial protease. Two antimicrobial susceptibility tests were used: the agar well diffusion method, and the macrodilution (tube) broth method to determine the minimum inhibitory concentration. The hydrolysate was able to promote inhibition zones ranging from 17 to 20 mm. Furthermore, the minimum inhibitory concentration was 3.74 mg/ml. This study demonstrated that soybean cake hydrolysate obtained under specific conditions possessed antimicrobial activity, and could be used as source of new antimicrobial compounds for use by the food industry as natural preservatives.

Palavras-chave: Gram-positive bacteria; Glycine max; enzymatic hydrolysis