Effect of Environmental Factors on Keratinase Activity of Native Strain

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ABSTRACT

The bacteria Bacillus thuringiensis Wu2 was isolated from poultry farm soil, it can degraded the feather completely in two weeks. The degraded feather was observed with Fourier transform-infrared (FTIR), the bonds between the function group of feather were discredited and decrease. Under the culture condition 37℃ and pH 7, the biomass were reached the maximum 1.135 g/L at 68 hour. The maximum activity was 3.50 kU/mL and the optimal pH and temperature of keratinase activity of B. thuringiensis Wu2 was pH 7 and 40℃, respectively otherwise addition the nitrogen source of Peptone、Urea、NH4Cl and NaNO3 into the medium,it doesn’t significance to the keratinase activity.

Keywords : Bacillus sp., Keratinase, Feed addition, Feather.

Table of Contents

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