

*ABSTRACT*

**DRUG DEPOSITION OF CIPROFLOXACIN HCl-CARAGEENAN  
MICROSPHERE IN RAT LUNG**

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The aim of this research was to investigate drug deposition of ciprofloxacin HCl using carageenan microsphere as polymer matrix. Microspheres were administered to rat using nose-only exposure method as rat is known as a nose-only-breathing animal. Drug deposition in rat lungs was observed using fluorescence microscope and Rhodamine B as fluorochrome. The result showed that the microsphere system was able to get ciprofloxacin to the target site and the increase in polymer concentration prolonged the drug residence time in lung.

**Keywords :** Ciprofloxacin HCl, Carageenan, Microsphere, Drug Deposition.