



Research Article



## Design and Characterization of Ranitidine Hydrochloride Mucoadhesive Nanoparticles for the Treatment of Peptic Ulcer

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### ABSTRACT

Ranitidine Hydrochloride is pale yellow, Granular substance Soluble in water, Histamine 2-receptor antagonist and antiulcer drug. In this paper we have evaluated the drug Ranitidine Hydrochloride by Release kinetics , *In vitro* release studies ,Morphology , Poly dispersibility index (PDI) , Drug entrapment efficiency And Zeta potential . The present's investigations mainly focus on preparation and characterization of Mucoadhesive nanoparticles by using chitosans, sodium alginate as mucoadhesive materials. Optimization was done by *in vitro* drug release and Mucoadhesive washout test.

**Keywords:** Ranitidine, Chitosan, PDI, Antagonist.

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