# Investigation on the conditions of hyaluronic acid extraction from rooster combs by protein precipitants


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**ABSTRACT**

Many pharmaceutical hyaluronic acid (HA) products have been prepared from umbilical cord, synovial fluid, skin and rooster combs as well as microbial fermentation. At present, most of HA is prepared from rooster combs. The HA extract has been purified using precipitant to remove impurities and obtain with product desirable purity. Because chloroform which precipitant used in this purification procedure is a high toxic organic solvent and higher cost, the aim of this study is to search for other protein precipitants to replace chloroform, and to investigate the effect of different precipitants on the yield and quality of HA extracted from rooster combs. In this study, the result shows: the yield of hyaluronic acid is 0.661%、purity is 0.201 mg HA/g extract、viscosity is 5.04 cps and the amount of protein is 0.064 mg/mL in the control. The products obtained in this study were as the same as the product using chloroform as a precipitant. Instead of using chloroform, applying these deproteinizing agents not only reduces costs, but also decreases environmental pollution.



Keywords : hyaluronic acid ;deproteinizing agent ; protein precipitant


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