عنوان مقاله:

Purification of Human Serum Albumin by Ion Exchange Chromatography

محل انتشار:

مجله تحقیقات بیهوشی سلولی و مولکولی, دوره 1, شماره 4 (سال: 1395)

تعداد صفحات اصل مقاله: 5

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خلاصه مقاله:

Background: Albumin, one of the most important plasma proteins, has a difficult process of synthesis and production. We compared two different methods for albumin purification: Carboxymethyl cellulose (CM cellulose) resin exchange and Diethylaminoethyl cellulose (DEAE cellulose) resin exchange in order to determine which resin could be more beneficial.Materials and Methods: two ion exchange resins were used DEAE cellulose resin and CM cellulose resin. All resins were recruited according to the standard preparation protocol. The final results were analyzed using SDS-PAGE technique.Results: in DEAE Cellulose resin, nearly more than 75% of the purified protein was albumin; while, in CM cellulose resin, more than 90% was albumin.Conclusion: albumin purification using CM cellulose resin is much more efficacious compared to DEAE cellulose resin. Though significant laboratory findings were demonstrated in this study, clinical studies are needed to confirm clinical outcomes.

کلمات کلیدی:

human serum albumin; carboxymethyl cellulose; diethylaminoethyl cellulose; ion exchange chromatography