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New chromatographic media for plasmid DNA purification

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Abstract

The interest in plasmid DNA for therapy and vaccination has rapidly evolved during recent years. Chromatography is the most common large scale purification technique for plasmid DNA. There is, however, currently no good chromatographic media available since most media are optimized for small or medium sized molecules. New media for large molecules such as plasmid DNA are therefore needed. In this report, several new prototype media are evaluated. Specifically how the media's pore and bead size as well as surface extenders affect the purification of plasmid DNA has been investigated. The conclusions from this study are that a good media for plasmid DNA purification should consist of a media where the plasmid DNA can move freely (*i.e.* in or on the media). Suitable media could be either small semisolid particles with extender arms such as dextran or somewhat larger particles with macro-pores.

Keywords

Plasmid DNA, liquid chromatography, chromatographic media, capacity

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