LiquidMAG® Cationic Nanoparticles



RESEARCH LTD

Introduction

- The LiquidMAG® range of products includes polycationic dextran (LiquidMAG®-QD + LiquidMAG®-DD) molecules.
- The new coatings include a quaternary amine group and dextran containing both tertiary and quaternary amine groups.
- LiquidMAG® are used in various areas:
 - -as an adjuvant for vaccines
 - in transfection techniques and viral infectivity
 - for stabilisation of proteins (enzymes)
- Q-dextran is distinct from DEAE-dextran:
 - it only contains quaternary amine groups.
 - the molecule will be charged over a wide pH range (4-10).
- For DEAE-dextran, there are two types of groups and a titration curve shows 3 equivalence points.

$$\begin{array}{c|c} OH & CH_3 \\ \hline \\ CH & N \\ \hline \\ CH_2 & H_2 \end{array}$$

Fig 1. Functional groups present in Q-dextran (top) and DEAE-dextran (bottom)

Product	Dextran (kDa)	Positive chain	Hydrodynamic size (nm)	ζ-potential (mV)	Fe (mg/ml)	Solvent
LiquidMAG®QD	20	Q	8.0	50	10	dH ₂ O
LiquidMAG®DD	40	DEAE	8.0	40	10	dH ₂ O

Customised particles and colloids can prepared including different dextran molecular weights and concentration. We are happy to accept speculative enquiries about the range of materials and expertise available in our company.









SUPPLIERS OF MAGNETIC FLUID FOR INDUSTRY AND RESEARCH

