Product Data Sheet

Product Name:	Poly-L-lysine hydrochloride
Cat. No.:	GC63849

Chemical Properties

Cas. No.	26124-78-7		
Formula	(C6H14N2O2.HCl)x	M.Wt	15000-30000
Solubility	H_2O : 50 mg/mL (Need ultrasonic and warming)	Storage	4°C, away from moisture and light
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Poly-L-lysine hydrochloride		

Background

Poly-L-lysine hydrochloride is a nonspecific attachment factor for cells useful in promoting cell adhesion to solid substrates by enhancing electrostatic interaction between negatively charged ions of the cell membrane and the culture surface. Poly-L-lysine hydrochloride is a strong-attraction regulator that promotes liquid-liquid phase separation (LLPS) at low concentrations but suppresses LLPS at high concentrations. Antibacterial cationic peptide.[1].

Poly-L-lysine is a food-grade antimicrobial peptide that forms complexes with proteins. Such complexes are potential carriers for targeted delivery of agents. Electrostatic potential modelling of EPL was employed to describe the interaction affinity. A three-dimensional phase boundary curve was established which divided the complexation into a nano-scale and phase separation[2].

[1]. Archishman Ghosh, et al. Three archetypical classes of macromolecular regulators of protein liquid-liquid phase separation. Proc Natl Acad Sci U S A. 2019 Sep 24;116(39):19474-19483.
[2]. Liang Guo, et al. pH-induced structural transition during complexation and

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precipitation of sodium caseinate and ε-Poly-l-lysine. Int J Biol Macromol. 2020 Jul 1;154:644-653.

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