Functional Poly(L-Lysine)

Acetal-Poly-L-lysine
Acetal-capped poly-L-lysine (Acetal-poly-L-lysine, Acetal-PLL) is a positively charged synthetic polyamino acid. It is a crystalline solid soluble in water. Applications for poly-L-lysine include the promotion of cell adhesion to solid substrates for culture dishes or slides, the conjugation to active molecules for improved activities, the layer-by-layer deposition techniques, and the complexation with nucleic acids for gene expression.

Acetal-functionalized polymers can be easily reduced to aldehyde group using acidic aqueous conditions (pH=2-4). Aldehyde group can selectively react with amine or thiol group in aqueous solution.

(11222)
- Molecular weight: 3300 (X=20), 8,200 (X=50), 16,000 (X=100), 32,000 (X=200)
- Package size: 100mg, 500mg, 1g

N3-PLL
Azide capped poly(L-lysine) (N3-PLL) is a functional cationic polyamino acid used for surface modification or gene/drug delivery. The azide-PLL can be modified by alkyne-containing moieties through click chemistry.

(9093)
- Molecular weight: 3000 (m=20), 7500 (m=50)
- Package size: 50mg, 100mg

OPSS-poly-L-Lysine/OPSS-PLL
Ortho-pyridyl disulfide capped poly-L-lysine hydrochloride (OPSS-poly-L-lysine, OPSS-PLL, Pyridyl-thio-PLL) is a positively charged synthetic polyamino acid. It is a crystalline solid soluble in water. Applications for poly-L-lysine include the promotion of cell adhesion to solid substrates for culture dishes or slides, the conjugation to active molecules for improved activities, the layer-by-layer deposition techniques, and the complexation with nucleic acids for gene expression.

Orthopyridyl disulfide or pyridylthio (OPSS) functionalized polymers can selectively reacts with free thiol, SH, sulfhydryl or mercapto to form a oxidation, reduction reversible disulfide bond.

(11043)
- Molecular weight: 3300 (X=20), 8,200 (X=50), 16,000 (X=100), 32,000 (X=200)
- Package size: 100mg, 500mg, 1g

Poly-L-Lysine hydrochloride
Poly-L-Lysine hydrochloride or Poly(L-Lysine hydrochloride) is a positively charged synthetic polyamino acid having one HCl per lysine unit.

It is a crystalline solid soluble in water. Poly-L-lysine hydrochloride is a good alternative to poly-L-lysine hydrobromide in applications where biocompatibility is critical.

PLL can be used for conjugation to active molecules for improved activities, the layer-by-layer deposition techniques, and the complexation with nucleic acids for gene expression.

(10039)
- Molecular size: 3000 (x=20), 5000 (x=30), 16K (x=100), 32K (x=200)
- Package size: 150mg, 500mg, 1g
Poly-L-lysine hydrochloride alkyne

Alkyne terminated poly-L-lysine hydrochloride or Poly-L-lysine hydrochloride alkyne (PLL-Alkyne) is a positively charged synthetic polyamino acid having one HCl per lysine unit and alkyne group on the N-terminal. It is a crystalline solid soluble in water. Applications for poly-L-lysine hydrobromide include the promotion of cell adhesion to solid substrates for culture dishes or slides, the conjugation to active molecules for improved activities, the layer-by-layer deposition techniques, and the complexation with nucleic acids for gene expression.

Alkyne-terminated polymers were used to react azide group "click" chemistry in mild condition, which is very useful for bioconjugation.

Molecular weight: 3300 (X=20), 8200 (X=50), 16,000 (X=100), 32,000 (X=200)
Package size: 100mg, 500mg, 1g

Poly-L-lysine hydrochloride biotin

Biotinylated poly-L-lysine hydrochloride or Poly-L-lysine hydrochloride biotin (PLL-biotin) is a positively charged synthetic polyamino acid having one HCl per lysine unit and biotin on the N-terminal. It is a crystalline solid soluble in water. Applications for poly-L-lysine hydrobromide include the promotion of cell adhesion to solid substrates for culture dishes or slides, the conjugation to active molecules for improved activities, the layer-by-layer deposition techniques, and the complexation with nucleic acids for gene expression.

Biotins (BIO)-functionalized polymers can bind to streptavidin and avidin with high affinity and specificity.

Molecular weight: 3300 (X=20), 8200 (X=50), 16,000 (X=100), 32,000 (X=200)
Package size: 100mg, 500mg, 1g

Tritylthiol terminated poly-L-lysine

Tritylthiol terminated poly-L-lysine (PLL-tritylthiol, Tritylthiol-PLL, Trt-SH-PLL, PLL-Trt-SH) is a positively charged synthetic polyamino acid terminated with trityl protected SH. It is a crystalline solid soluble in water. Applications for poly-L-lysine include the promotion of cell adhesion to solid substrates for culture dishes or slides, the conjugation to active molecules for improved activities, the layer-by-layer deposition techniques, and the complexation with nucleic acids for gene expression.

Tritylthiol Poly-L-lysine can be offered in form of hydrochloride. Trityl group can be easily removed by TFA to obtain free SH.

SH-terminated polymers were used to selectively react with maleimide and transition metal surface including gold, silver, etc.

Molecular weight: 3300 (X=20), 8200 (X=50), 16,000 (X=100), 32,000 (X=200)
Package size: 100mg, 500mg, 1g