3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-325-5832 • (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

ProductInformation

Poly-L-lysine, succinylated

Product Number **P 4283**
Storage Temperature -0 °C

Product Description

This product is prepared from poly-L-lysine (15-30 kDa). This product is succinylated by adding 70 mg of succinic anhydride with stirring to 2 ml of 100 mM carbonate buffer, pH 8.0, containing 20 mg of poly-L-lysine hydrobromide.[1] The pH is continuously adjusted to pH 8.0 using a concentrated NaOH solution. Alternatively, 100 mM phosphate buffer, pH 7.0, can be used in place of the carbonate buffer.[2] In this case, the pH is maintained at 7.0. The final product, succinylated poly-L-lysine, is then dialyzed for 24-48 hours against water and lyophilized. As a result of the method of preparation, all of the amines are succinylated, including all the epsilon amine groups. The terminal amino group is succinylated as well.

This product can be used as an intermediate for coupling proteins to poly-L-lysine. This reaction includes a carbodiimide condensation step. This procedure has been routinely used to couple poly-L-lysine to the N-terminus of angiotensin in order to render it antigenic. [2,3] This product has also been used to couple deferoxamine:triethylamine (1:1).[1]

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

This product is soluble in 0.1 M phosphate buffer, pH 7.0 (10 mg/ml).

References

1. Slinkin, M.A., et al., Succinylated polylysine as a possible link between an antibody molecule and deferoxamine. Bioconjugate Chem., **1(4)**, 291-295 (1990).
2. Stason, et al., Synthesis of an antigenic copolymer of angiotensin and succinylated poly-L-lysine. Biochim. Biophys. Acta, **133(3)**, 582-584 (1967).
3. Haber, E., et al., Application of a radioimmunoassay for angiotensin I to the physiologic measurements of plasma renin activity in normal humand subjects. J. Clin. Endocr., **29(10)**, 1349-1355 (1969).

CMH/NSB 2/03