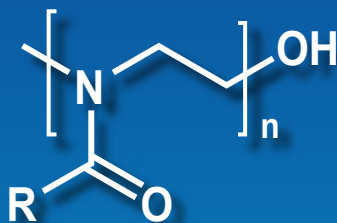


Water-soluble Biocompatible Polymers Poly(2-oxazoline)s



R = CH ₃	ULTROXA® Poly(2-methyl-2-oxazoline) (n=approx. 100)	200mg [P2506]
R = CH ₂ CH ₃	ULTROXA® Poly(2-ethyl-2-oxazoline) (n=approx. 100)	500mg [P2507]
R = (CH ₂) ₂ CH ₃	ULTROXA® Poly(2-propyl-2-oxazoline) (n=approx. 100)	200mg [P2508]

Advantages

- Biocompatible and non-immunogenic pseudo-polypeptide structure
- P2506 is more hydrophilic than poly(ethylene glycol) (PEG).
- P2507 or P2508 transitions to a hydrophobic state in water when heated.
(Low Critical Solution Temperature (LCST): P2507 ca. 65°C, P2508 ca. 25°C)

Applications

Surface Coating with Protein-repellent or Nonfouling Properties

R. Konradi, *et al.*, *Langmuir* **2008**, 24, 613. <https://doi.org/10.1021/la702917z>

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Drug Delivery Systems

T. X. Viegas, *et al.*, *Bioconjugate Chem.* **2011**, 22, 976. <https://doi.org/10.1021/bc200049d>

H. Bludau, *et al.*, *Eur. Polym. J.* **2017**, 88, 679. <https://doi.org/10.1016/j.eurpolymj.2016.10.041>

Thermoresponsive Material

R. Hoogenboom, *et al.*, *Chem. Commun.* **2008**, 0, 5758. <https://doi.org/10.1039/B813140F>

M. A. Boerman, *et al.*, *J. Polym. Sci. A* **2016**, 54, 1573. <https://doi.org/10.1002/pola.28011>

M. Mees, *et al.*, *Biomacromolecules* **2016**, 17, 3580. <https://doi.org/10.1021/acs.biomac.6b01088>

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