

Mucoadhesive Fluorescent Conjugate Synthesis via a Protein-Macro initiator for Drug Delivery

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Bovine Serum Albumin, BSA, has been used as a protein-macroinitiator. It has been used to polymerize functional methacrylate monomers. A potential application as a compound for efficient antibiotic delivery to rainbow trout is currently being investigated. BSA-poly(DMAEMA-co-rhodamine) is suitable for several reasons. BSA is a known antigen, polyDMAEMA has good mucoadhesive properties, and the fluorescent rhodamine component maybe used to determine the site of attachment upon the fish. In this study the conjugate has been synthesized by a “grafting from” approach (Figure 1) and characterized via chromatographic techniques.

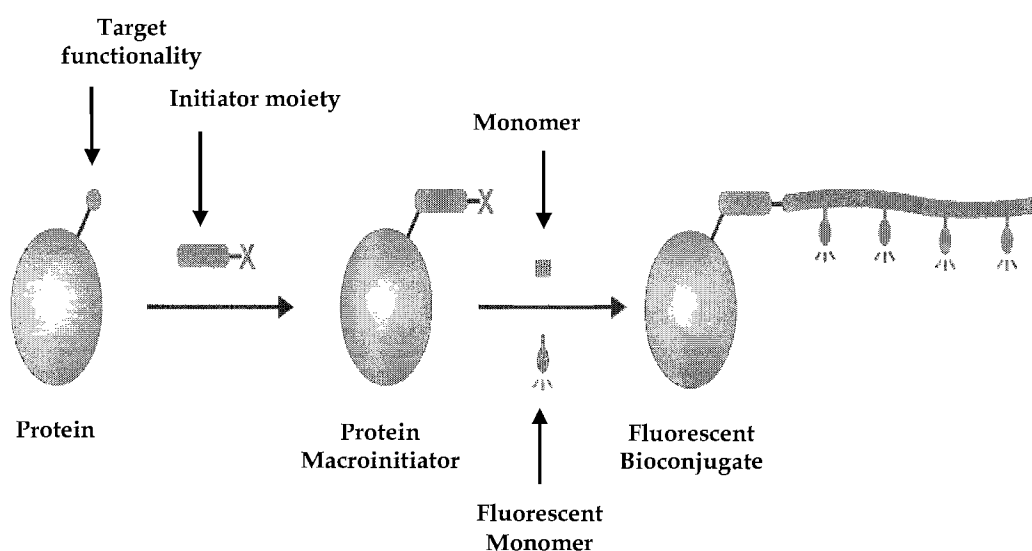


Figure 1 - Strategy for mucoadhesive fluorescent conjugate by a “grafting from” approach.

References

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- (2) Limer, A; Rullay, A; San Miguel, V; Peinado, C; Keely, S; Fitzpatrick, E; Carrington, S; Brayden, D; Haddleton, D; *Reactive & Functional Polymers*, **2006**, 66, 51–64.