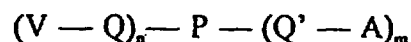


ABSTRACT

AMPLIFICATION OF THE VB₁₂ UPTAKE SYSTEM USING POLYMERS

The invention relates to the oral delivery of peptide and protein pharmaceuticals using the vitamin B₁₂ (VB₁₂) uptake system, with the delivery being amplified using polymers. More particularly, the invention concerns a complex having the general formula:



where, V is a carrier which will bind to natural intrinsic factor (IF) selected from vitamin B₁₂ or an analogue thereof, n is the molar substitution ratio of V in the complex, and is a number from 1.0 to about 10, P is a pharmaceutically acceptable polymer, A is a pharmaceutically active substance, m is the molar substitution ratio of A in the complex, and is a number greater than 1.0 to about 1000, Q and Q' are independently a covalent bond, or a spacer compound linking V, P and A by covalent bonds.