

Abstract

The present invention is directed to crystals of P^1 -(2'-deoxycytidine 5'-)- P^4 -(uridine 5'-)-tetrphosphate (dCP4U) or a salt thereof and to a process for producing the crystals. The present invention also provides a process for producing dCP4U involving reacting uridine 5'-monophosphate (UMP), 2'-deoxycytidine 5'-monophosphate (dCMP), diphenyl phosphochloridate (DPC), and pyrophosphate (PPi). The crystals of dCP4U obtained through the process according to the present invention have high purity and high stability and no hygroscopicity as compared with a freeze-dried product, and thereby serve as a useful raw material for preparing a pharmaceutical. The process for producing dCP4U according to the present invention permits use of inexpensive UMP as a raw material and realizes high yield. Thus, the process is suitable for large-scale synthesis of dCP4U.