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(54) Title: C-NUCLEOSIDE MONOPHOSPHATE SYNTHESIS

(57) Abstract: Provided herein is a one-pot method of synthesising a C-nucleoside-5'-monophosphate such as pseudouridine-5' -monophosphate, from an N-nucleoside using a multi-step enzymatic pathway. The method comprises reacting the N-nucleoside with a phosphate source and nucleoside phosphorylase to form a pentose-1-phosphate intermediate, reacting the pentose-1-phosphate intermediate with a phosphomutase to form pentose-5-phosphate intermediate, and reacting the pentose-5-phosphate intermediate with a nucleoside-5'-phosphate C-glycosidase to form the C-nucleoside-5'-monophosphate.

WO 2023/131727 A1