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(54) Title: 6-DISUBSTITUTED BICYCLIC NUCLEIC ACID ANALOGS

(57) Abstract: The present disclosure describes 6-disubstituted bicyclic nucleosides, oligomeric compounds prepared therefrom and methods of using the oligomeric compounds. More particularly, the 6-disubstituted bicyclic nucleosides each comprise a 2'-O-C(Ri)(R2)-4' or 2'-O-C=(R3)(R.4)-4' bridge wherein each R is, independently a substituent group and Ri and R2 include H. The 6-disubstituted bicyclic nucleosides are useful for enhancing properties of oligomeric compounds including nuclease resistance. In certain embodiments, the oligomeric compounds provided herein hybridize to a portion of a target RNA resulting in loss of normal function of the target RNA.



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INTERNATIONAL SEARCH REPORT

International application No

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A. CLASSIFICATION OF SUBJECT MATTER

INV. C07H21/00 C07H19/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
C07H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2003/105309 A1 (IMANISHI TAKESHI [JP] ET AL) 5 June 2003 (2003-06-05)	
A	JESPER WENGEL ET AL: "Chemistry of locked nucleic acids (LNA): Design, synthesis, and bio-physical properties" INTERNATIONAL JOURNAL OF PEPTIDE RESEARCH AND THERAPEUTICS ; FORMERLY KNOWN AS LETTERS IN PEPTIDE SCIENCE, KLUWER ACADEMIC PUBLISHERS, DO, vol. 10, no. 3-4, 1 May 2003 (2003-05-01), pages 237-253, XP019287568 ISSN: 1573-3904	
A,P	WO 2007/134181 A (ISIS PHARMACEUTICALS INC [US]; SETH PUNIT P [US]; SWAYZE ERIC E [US]) 22 November 2007 (2007-11-22)	

 Further documents are listed in the continuation of Box C. See patent family annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003105309 A1	05-06-2003	NONE	
WO 2007134181 A	22-11-2007	US 2007287831 A1	13-12-2007