

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference VVID-746PC-184200-00050	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US2024/048567	International filing date (day/month/year) 26 September 2024 (26-09-2024)	(Earliest) Priority Date (day/month/year) 27 September 2023 (27-09-2023)
Applicant VIVIDION THERAPEUTICS, INC.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 6 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of:

☒ the international application in the language in which it was filed

☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6bis(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box No. II)

3. ☐ **Unity of invention is lacking** (see Box No III)

4. With regard to the **title**,

☐ the text is approved as submitted by the applicant

☒ the text has been established by this Authority to read as follows:

RAS-PI3K INHIBITORS FOR THE TREATMENT OF CANCER AND IMMUNOLOGICAL DISEASES

5. With regard to the **abstract**,

☐ the text is approved as submitted by the applicant

☒ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. _____

☐ as suggested by the applicant

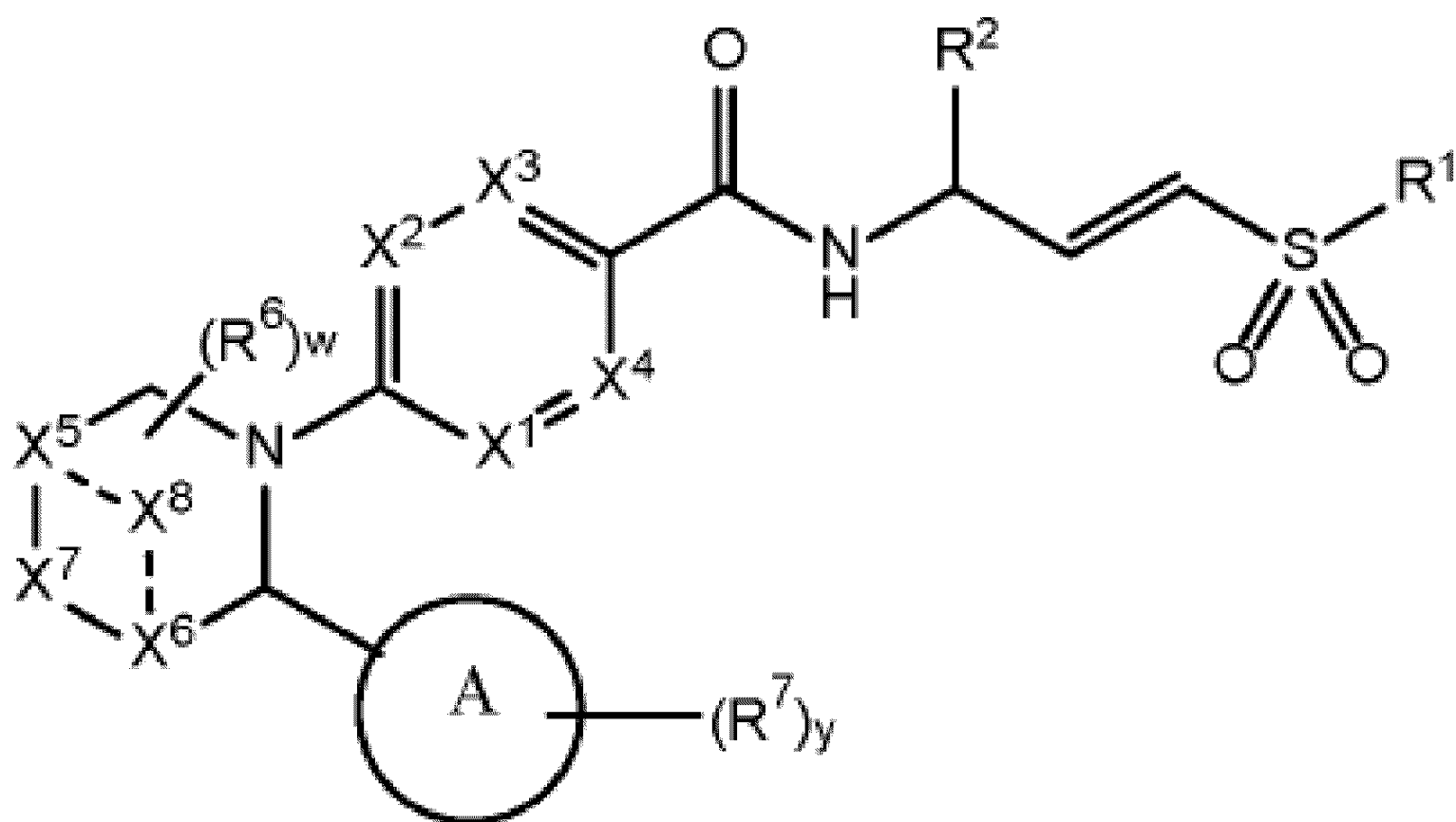
☐ as selected by this Authority, because the applicant failed to suggest a figure

☐ as selected by this Authority, because this figure better characterizes the invention

b. ☐ none of the figures is to be published with the abstract

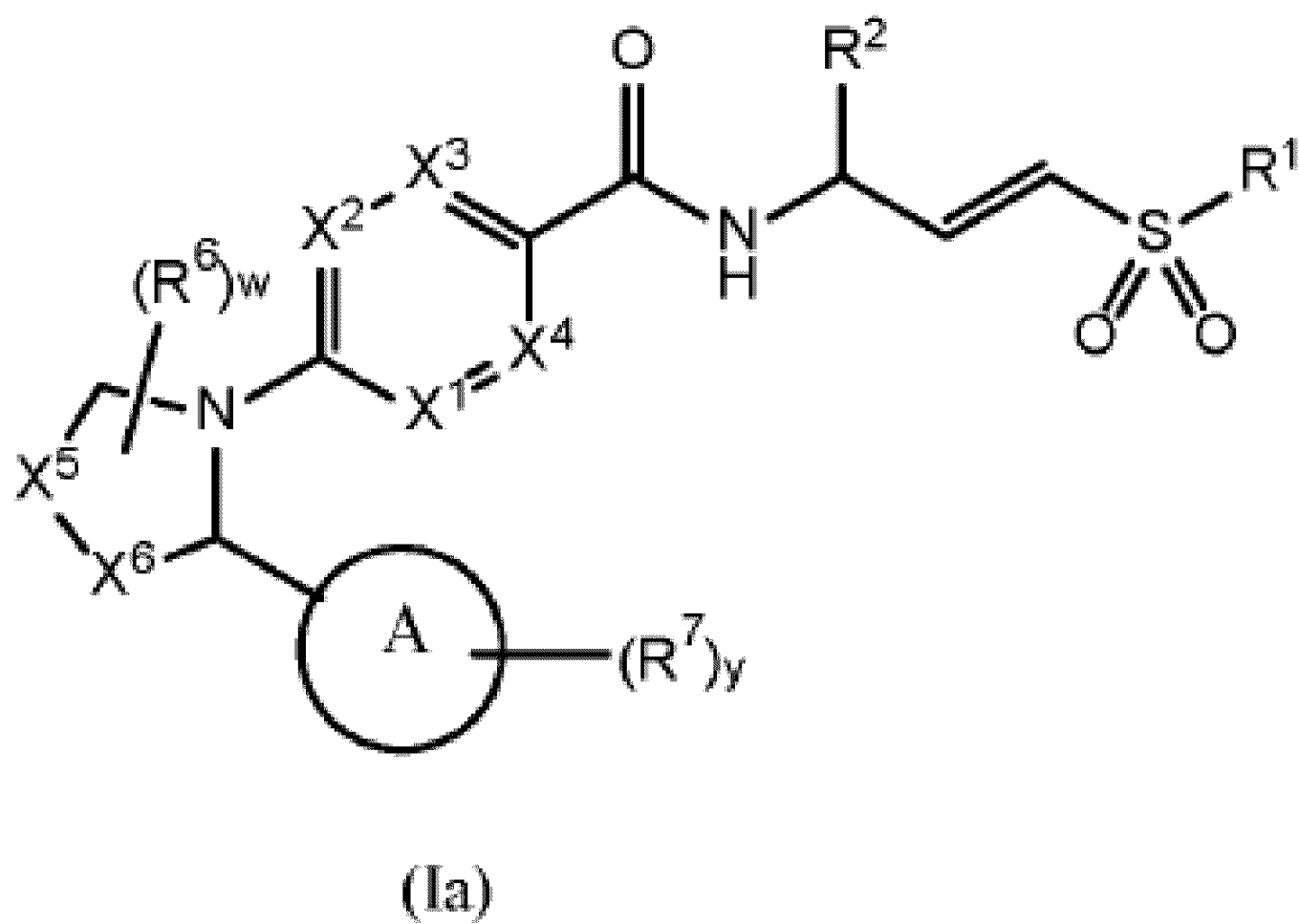
Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

The application relates to modulators of RAS-PI3K of formula (I) or (Ia) useful for the treatment of cancer and immunological diseases.



(I)

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)



INTERNATIONAL SEARCH REPORT

International application No
PCT/US2024/048567

A. CLASSIFICATION OF SUBJECT MATTER

INV. C07D207/06 C07D207/08 C07D207/10 C07D207/12 C07D207/26
C07D209/44 C07D209/46 C07D209/52 C07D211/14 C07D211/18
C07D211/38 C07D211/74 C07D223/04 C07D241/08 C07D241/28

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)

C07D A61P A61K

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 practicable, search terms used)

EPO-Internal, WPI Data, EMBASE, 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	KUMAR, S. ET AL.: "Piperlongumine, a piper alkaloid targets Ras/PI3K/Akt/mTOR signaling axis to inhibit tumor cell growth and proliferation in DMH/DSS induced experimental colon cancer", BIOMEDICINE & PHARMACOTHERAPY, vol. 109, 2019, pages 1462-1477, XP085552009, ISSN: 0753-3322, DOI: 10.1016/J.BIOPHA.2018.10.182 abstract page 1463; figure 1 -----	1 - 73
A	WO 2021/204159 A1 (AGIOS PHARMACEUTICALS, INC.; THE REGENTS OF THE UNIVERSITY OF MICHIGAN) 14 October 2021 (2021-10-14) abstract page 131; compound 326 ----- - / - -	1 - 73

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance;; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance;; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the international search report

3 December 2024

02/01/2025

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INTERNATIONAL SEARCH REPORT

International application No

PCT/US2024/048567

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A,P	WO 2024/182404 A1 (VIVIDION THERAPEUTICS, INC.) 6 September 2024 (2024-09-06) abstract; claims; examples -----	1 - 73
A,P	WO 2024/010782 A1 (VIVIDION THERAPEUTICS, INC.) 11 January 2024 (2024-01-11) abstract; claims page 172 - page 177; examples 166-176 -----	1 - 73

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2024/048567

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2021204159 A1	14-10-2021	TW 202204333 A WO 2021204159 A1	01-02-2022 14-10-2021

WO 2024182404 A1	06-09-2024	NONE	

WO 2024010782 A1	11-01-2024	AR 129853 A1 TW 202409001 A US 2024067612 A1 US 2024140915 A1 WO 2024010782 A1	02-10-2024 01-03-2024 29-02-2024 02-05-2024 11-01-2024
