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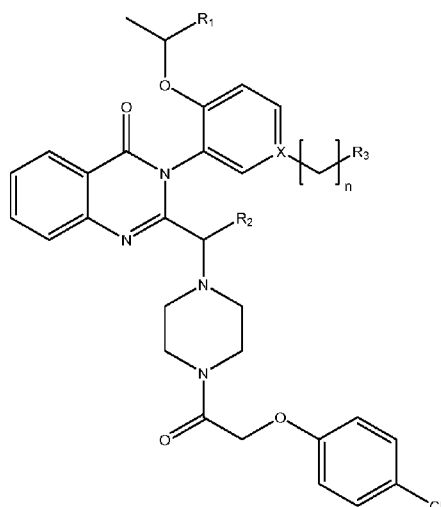
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(54) Title: QUINAZOLINONE-BASED ONCOGENIC-RAS-SELECTIVE LETHAL COMPOUNDS



(1)

(57) Abstract: The present invention provides, inter alia, a number of compounds. Compositions containing such compounds are also provided. Methods for using such compounds or compositions for treating or ameliorating the effects of a cancer having a cell that harbors an oncogenic RAS mutation, for modulating a lipoxxygenase in a fen-optosis cell death pathway, and for depleting reduced glutathione (GSH) in a cell harboring an oncogenic RAS mutation are further provided.

INTERNATIONAL SEARCH REPORT

international application no.

PCT/US13/50244

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A61K 31/517, 31/551; C07D 333/32 (2013.01)

USPC - 514/218, 252.17; 540/575

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)

IPC(8) Classification(s): A61K 31/517, 31/551; C07D 333/32, 403/02, 409/12; A61P 31/00 (2013.01)

USPC Classification(s): 514/218, 252.17, 445; 540/575; 544/284

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)

MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); Google; Google Scholar; PubMed; IP.Com; modulat*, *ALOX*, *gene*, polypep*, erastin*, piperazin*, ferroptosis*, cell*, pathway*, dihydroquinazolin*, anticancer*, quinazolinone*

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2006/0211683 A1 (SELLIAH, R et al.) September 21, 2006; abstract; figure 2; compounds I-V; compound 18, page 19; paragraphs [0007], [0010]-[0011], [0054], [0195]-[0202], [0349], [0404]; table 4, paragraph [0559]; claim 9	1-3, 6-8, 11/1-11/3, 12/6-12/8, 14-16, 20-23, 25/21-25/23, 26/21-26/23, 27/25/21-27/25/23
Y		4-5, 9-10, 11/4-11/5, 12/9-12/10, 13, 17-19, 24, 25/24, 26/24, 27/25/24, 28-30, 31/21-31/24, 32/31/21-32/31/24, 33-34, 35/21-35/24, 36
Y	US 2011/0288052 A1 (TOWNSEND, CA et al.) November 24, 2011; compound 40, paragraphs [0002], [0112]	4-5, 9-10, 11/4-11/5, 12/9-12/10, 13, 17-18, 24, 25/24, 26/24, 27/25/24, 28-30, 31/24, 32/31/24, 33-34, 35/24, 36
Y	DIXON, SJ et al. 'Ferroptosis: An Iron-Dependent Form of Non-Apoptotic Cell Death.' Cell, May 25, 2012, Vol. 149, No. 5: pages 1060-1072; NIH Public Access Author Manuscript; page 8, paragraph 1	31/21-31/24, 32/31/21-32/31/24, 35/21-35/24
Y	WANG, B et al. 'An Inhibitor of Arachidonate 5-Lipoxygenase, Nordy, Induces Differentiation and Inhibits Self-Renewal of Glioma Stem-Like Cells.' Stem Cell Rev and Rep, September 1, 2010; abstract; page 2, paragraph 3; page 3, paragraph 3	19, 31/21-31/24, 32/31/21-32/31/24, 34

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

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

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"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

"G" document member of the same patent family

Date of the actual completion of the international search

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