



Health and Humanitarian Logistics Conference
July 2018
Thomas Bombelles
Head, NGO and Industry Relations, WIPO

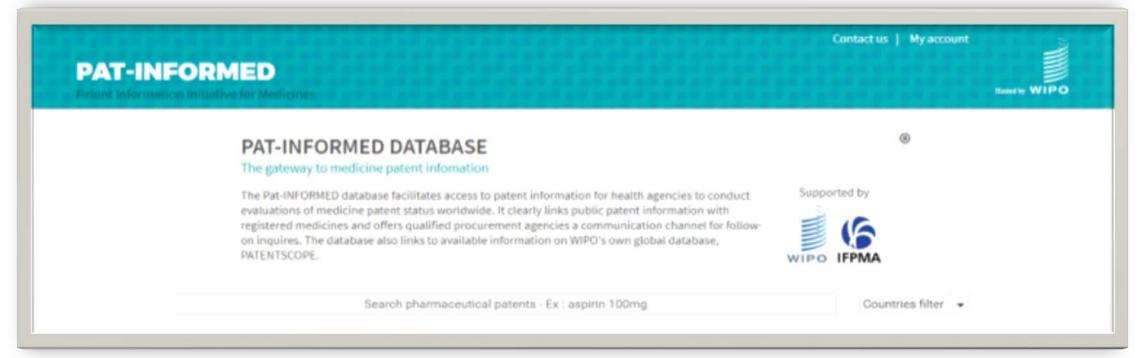




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- Pat-INFORMED is a partnership of WIPO, IFPMA and 21 global pharma companies.





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The Pat-INFORMED database facilitates access to patent information for health agencies to conduct evaluations of medicine patent status worldwide. It clearly links public patent information with registered medicines and offers qualified procurement agencies a communication channel for followon inquires. The database also links to available information on WIPO's own global database, PATENTSCOPE.



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Pioglitazone			All	Takeda	W02007007659 - TABLET		
Hydrochloride	Tablet	Oral			W02007136129 - ORAL PREPARATION COMPRISING PIOGLITAZONE		
					AT1174135 - Pharmaceutical Composition For Use In Treatment Of Diabetes		
Glimepiride; Pioglitazone Hydrochloride	Tablet	Oral	All	Takeda	EP1677792 - SOLID PREPARATION COMPRISING PIOGLITAZONE, GLIMEPIRIDE AND A POLYOXYETHYLEN		
					WO2007072992 - SOLID PREPARATION		
Sunitinib Malate	Capsule	Oral	All	Pfizer	W00160814 - Pyrrole Substituted 2- Indolinone Protein Kinase Inhibitors		
	Tablet				W02000034241 - N-SUBSTITUTED 2- CYANOPYRROLIDINES		
Vildagliptin		Tablet	Oral	50mg	U NOVARTIS	W02001052825 - COMBINATIONS COMPRISING DIPEPTIDYLPEPTIDASE-II INHIBITORS AND ANTIDIABETIC AGENT	
					W02005067976 - DIRECT COMPRESSIO FORMULATION AND PROCESS		
Insulin Detemir					AT792290 - ACYLATED INSULIN		
Recombinant	Solution	Subcutaneous	All	novo nordisk	BR97098450 - Insulin Preparations Containing NaCl		
					W02002034727 - TREATMENT OF GASTROINTESTINAL STROMAL TUMOR		



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Hydrochloride	Tablet	Oral			W02007136129 - ORAL PREPARATION COMPRISING PIOGLITAZONE		
			All	Takeda	AT1174135 - Pharmaceutical Composition For Use In Treatment Of Diabetes		
Glimepiride; Pioglitazone	Tablet	Oral			EP1677792 - SOLID PREPARATION COMPRISING PIOGLITAZONE, GLIMERIDIDE AND A ROLVOYVETHYLENE		
Hydrochloride					WO2 Indolinone Protein Kinase ION		
Sunitinib Malate	Capsule	Oral	All	Pfizer	W00160814 - Pyrrole Substituted 2- Indolinone Protein Kinase Inhibitors		
	Tablet	Oral	50mg	(b) NOVARTIS	W02000034241 - N-SUBSTITUTED 2- CYANOPYRROLIDINES		
Vildagliptin					W02001052825 - COMBINATIONS COMPRISING DIPEPTIDYLPEPTIDASE-IV INHIBITORS AND ANTIDIABETIC AGENTS		
					W02005067976 - DIRECT COMPRESSION FORMULATION AND PROCESS		
Insulin Detemir	Solution Subcu			novo nordisk	AT792290 - ACYLATED INSULIN		
Recombinant		Subcutaneous	All		BR97098450 - Insulin Preparations Containing NaCl		
					W02002034727 - TREATMENT OF GASTROINTESTINAL STROMAL TUMORS		



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Pioglitazone					W02007007659 - TABLET
Hydrochloride	Tablet	Oral	All	Takeda	WO2007136129 - ORAL PREPARATION COMPRISING PIOGLITAZONE
					AT1174135 - Pharmaceutical Composition For Use In Treatment Of Diabetes
Glimepiride; Pioglitazone Hydrochloride	Tablet	Oral	All	Takeda	EP1677792 - SOLID PREPARATION COMPRISING PIOGLITAZONE, GLIMEPIRIDE
					W02007072992 - SOLID PREPARATION
Sunitinib Malate	Capsule	Oral	All	Pfizer	W00160814 - Pyrrole Substituted 2-Indolinone Protein Kinase Inhibitors
Vildagliptin	Tablet		50mg		WO2000034241 - N- SUBSTITUTED 2- CYANOPYRROLIDINES
		Tablet Oral		b novartis	W02001052825 - COMBINATIONS COMPRISING DIPEPTIDYLPEPTIDASE-IV
					W02005067976 - DIRECT COMPRESSION FORMULATION AND PROCESS
Insulin			All	<u>e</u>	AT792290 - ACYLATED INSULIN
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## Pyrrole Substituted 2-Indolinone Protein Kinase Inhibitors



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#### Abstract

The present invention relates to pyrrole substituted 2-indolinone compounds and their pharmaceutically acceptable salts which modulate the activity of protein kinases and therefore are expected to be useful in the prevention and treatment of protein kinase related cellular disorders such as cancer.

Jurisdiction: WO-WIPO

Publication number W00160814

Publication date 2001/08/22 (16 years ago)

Open in PatentScope

Jurisdiction: AI - Anguilla

Filing date 2010/06/30 (7 years ago)

Grant date 2010/09/01 (7 years ago)

Grant number Al201000089

Link to Patentscope not available.

Jurisdiction: AL - Albania

Publication number 1255752

Publication date 2002/11/12 (15 years ago) Grant date 2007/08/07 (10 years ago)

Jurisdiction: EP - European Patent Office

Publication number 1255752

2002/11/12 (15 years ago) Publication date 2007/08/07 (10 years ago) Grant date

Grant number

Open in PatentScope

Jurisdiction: AI - Anguilla

Grant date 2010/08/31 (7 years ago)

Grant number A/2010/00089

Link to Patentscope not available.

Jurisdiction: AM - Armenia

Filing date 2001/02/15 (17 years ago) Grant date 2005/08/25 (12 years ago)

Grant number AM5996

Jurisdiction : DE - Germany



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Pioglitazone Hydrochloride	Tablet	Oral	All	Takeda	WO2007007659 - TABLET  WO2007136129 - ORAL  PREPARATION COMPRISING  PIOGLIFFAUNE	Jurisdiction: CL - Chile  Grant date 2009/20/08 (9 yea  Grant number 43.486  Link to Patentscope not available		Jurisdiction : CN - China  Publication number 1439005  Publication date 2003/08/26 (14 years ago)  Grant date 2007/07/31 (10 years ago)  Grant number ZL01807269.0
Sunitinib Malate	Capsule	Oral		Plizer	W00160814 - Pyrrole Substituted 2-Indolinone Protein Kinase Inhibitors	Jurisdiction : CO - Colombia Publication number 528	years ago)	Open in PatentScope  Jurisdiction: CY - Cyprus  Filing date 2008/02/08 (10 years ago)  Grant date 2009/07/31 (8 years ago)
Glimepiride; Pioglitazone Hydrochloride	Tablet	Jurisdica Publicat Publicat Grant da	tion n	ears ago) years ago)	Grant number CY2008004 Link to Patentscope not available.  Jurisdiction: CY - Cyprus Grant date 2009/07/3 (8 years ago) Grant number CY200 / 004 Link to Patentscope not available.			
Insulin Detemir Recombinant	Solution	Open in  Jurisdic	Paten	tScope			go)	Jurisdiction : CZ - Czech Republic  Publication number 20023081  Publication date 2003/02/11 (15 years ago)  Grant date 2013/02/12 (5 years ago)  Grant number 303705  Link to Patentscope not available.  Jurisdiction : DE - Germany
						Grant date 2016/08/18 (a yea Grant number 303705/289 Link to Patentscope not available		Filling date 2008/01/08 (10 years ago) Grant date 2014/04/03 (3 years ago) Grant number DE12211 Link to Patentscope not available.

Jurisdiction : DE - Germany



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#### **Machine translation**

1. (CN1439005) Pyrrole substituted 2-indolinone protein kinase inhibitors

National Biblio. Data | Description | Claims | Drawings | Documents

PermaLink @

Application Number: 01807269.0 Application Date: 15.02.2001 Publication Number: 1439005 Publication Date: 27.08.2003

Grant Number: 1329390 Grant Date: 01.08.2007

Publication Kind : C

Prior PCT appl.: Application Number: PCTUS2001004813; Publication Number: 2001060814 Click to see the data

IPC: C07D 403/06 @ CPC: C07D 233/56

A61K 31/404 C07D 207/33 A61P 43/00 C07D 209/44 C07D 231/12 C07D 403/14 C07D 401/14 C07D 249/08 C07D 401/12

C07D 401/14 C07D 403/06 C07D 403/12 C07D 403/14

Applicants: Sugen, Inc. 苏根公司

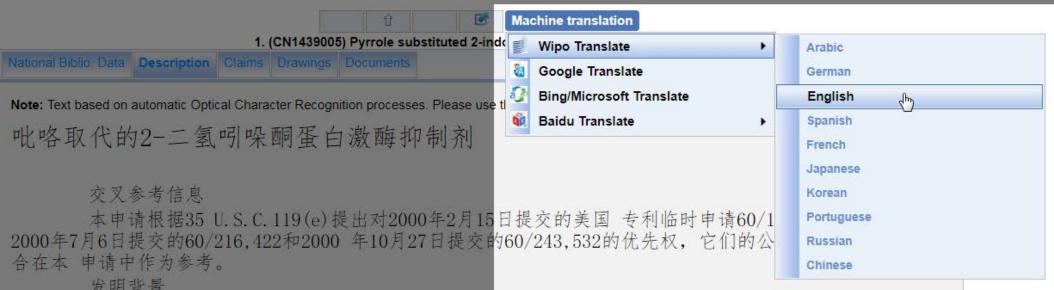
法马西亚及厄普约翰公司

Tang Peng-Cho Inventors:

唐彭出 Todd Miller 托德·米勒 Li Xiaoyuan 李小元 孙利 魏忠臣

萨赫扎德·舍拉齐安

梁崇新



发明背景

发明领域

本发明涉及某些调节蛋白激酶("PK")活性的3-吡咯取代的 2-二氢吲哚酮。本发明化合物 因此可用于治疗与PK活性反常有关的 疾病。还公开了含这些化合物的药物组合物, 使用含这些化合 物的药 物组合物治疗疾病的方法及它们的制备方法。

技术状况

以下只作为背景信息提供,不认为是本发明的先有技术。

PK是对蛋白质的酪氨酸、丝氨酸和苏氨酸残基上的羟基的磷酸化 起催化作用的酶。这种看 起来简单的活性的后果惊人:细胞生长、分 化和增殖,即,实际上细胞生命的所有方面都以这样或 那样的方式与 PK活性有关。另外, PK活性反常与许多疾病有关, 包括相对无生命 威胁的疾病, 如牛 皮癣, 到极其致命的疾病, 例如成胶质细胞瘤(脑 癌)。

PK可以方便地分成两类:蛋白酪氨酸激酶(PTK)和丝氨酸-苏氨酸激酶(STK)。

PTK活性的一个主要方面是它们与生长因子受体有关。生长因子 受体是细胞表面蛋白质。当 与生长因子配体结合时, 生长因子受体被 转化成活性形式, 它与细胞膜内表面上的蛋白质相互作 用。这导致受 体和其它蛋白质的酪氨酸残基上的磷酸化,并导致细胞内部形成与多 种胞质信号分子 的复合物,这反过来又影响许多种细胞相应,例如细胞分裂(增殖)、细胞分化、细胞生长、代谢作 更完全的讨论请参阅Schlessinger和Ullrich, Neuron, 9: 303-391(1992), 该文包括所有附图都象本申请中充分陈述的一样, 被引 用作为参考。

具有PTK活性的生长因子受体被称作受体酪氨酸激酶("RTK")。 它们包含一大族具有不同

IC II SCIVICES TATEIVISCOTI

Pyrrole-substituted 2-dihydroindol-one protein kinase inhibitor

Cross-reference information

The application is 35 U/S/C119. (e) and claims the benefit of US provisional application no. 60/182,710 filed feb. 15, 2000., 60/216 filed on jul. 6, 2000, and 60/243,532 filed oct. 27, 2000, and their disclosures are all incorporated herein by reference.

Background

Field of the invention

The invention relates to certain regulatory protein kinases ("PK")) and the active 3-pyrrole substituted 2-dihydroindol-one compound can be used for treating diseases related to PK activity abnormality. Also disclosed is a pharmaceutical composition containing these compounds., the invention relates to a method for treating diseases by using a pharmaceutical composition containing the compounds and a preparation method of the pharmaceutical composition

Technical condition

The following is only provided as background information and is not considered to be a prior art of the present invention

Pk is tyrosine for protein, serine and the hydroxyl on the threonine residue, so that the result of the enzyme with simple activity is surprising.: cell growth, differentiation and proliferation, in this way, all aspects of the cell life are related to the pk activity in such a way that the cell life is in the same or similar manner. In addition, the pk activity abnormality is related to a number of diseases, including a disease that is relatively free of life threats, such as psoriasis, to extremely fatal diseases, such as glioblastoma (brain cancer)

The pk can be conveniently classified into two types of protein tyrosine kinase (pTIF)) and serine-threonine kinase (sThe)

One major aspect of PTK activity is that they are related to growth factor receptors. The growth factor receptor is a cell surface protein. When combined with the growth factor ligand, the growth factor receptor is converted into an active form, with the protein on the inner surface of the cell membrane; This leads to phosphorylation on tyrosine residues of receptors and other proteins, and a compound with a plurality of cytoplasmic signal molecules is formed in the cells, which in turn affect many kinds of cells, such as cell division (proliferation), cell differentiation, cell growth、代谢作用对 胞外微环境的表达等。更完全的讨论请参阅Schlessinger和Ullrich,Neuron,9:303-391(1992),该文包括所有附图都象本申请中充分陈述的一样,被 引用作为参考。

具有PTK活性的生长因子受体被称作受体酪氨酸激酶("RTK")。它们包含一大族具有不同生物活性的跨膜受体。目前,已经确定了至少19种不同的RTK亚族。一个实例是称作"HER"RTK的亚族,它包括EGFR(上皮生长因子受体)、HER2、HER3和HER4。这些RTK组成一个胞外糖基化配体结合域、一个跨膜域和一个胞内胞质催化域,它能将蛋白质上的酪氨酸残基磷酸化。

另一个RTK亚族包括胰岛素受体(IR)、胰岛素样生长因子I受体(IGF-1R)和与胰岛素受体有关的受体(IRR)。IR和IGF-1R 与胰岛素、IGF-1和IGF-II相互作用,形成由两个完全胞外糖基化的α亚基和两个穿过细胞膜并包含酪氨酸激酶域的β亚基构成的异四聚体。

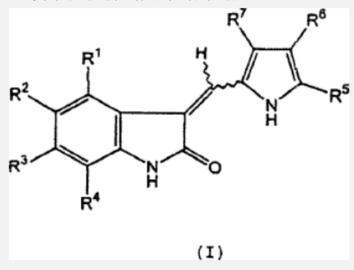
第三个RTK亚族被称作血小板源性生长因子受体("PDGFR")组,其中包括PDGFRα、PDGFRβ、CSFIR、c-kit和c-fms。这些受体由含数目不定的

National Biblio. Data Description Claims Drawings Documents

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#### 权利要求书

#### 1. 式(I)化合物或其可药用的盐:



#### 其中:

R<sup>1</sup>选自氢, 烷基和-C(0)NR<sup>8</sup>R<sup>9</sup>;

R<sup>2</sup>选自氢,卤素,烷氧基,氰基,芳基和-S(0)<sub>2</sub>NR<sup>13</sup>R<sup>14</sup>;

R<sup>3</sup>选自氢, 烷氧基, -(CO)R<sup>15</sup>, 芳基, 杂芳基和-S(O)<sub>2</sub>NR<sup>13</sup>R<sup>14</sup>;

R<sup>4</sup>选自氢;

R5选自氢和烷基;

R<sup>6</sup>是-C(0)R<sup>10</sup>,

R<sup>7</sup>选自氢,烷基和芳基;

R8和R9独立地选自氢和芳基;



#### **PATENTSCOPE**

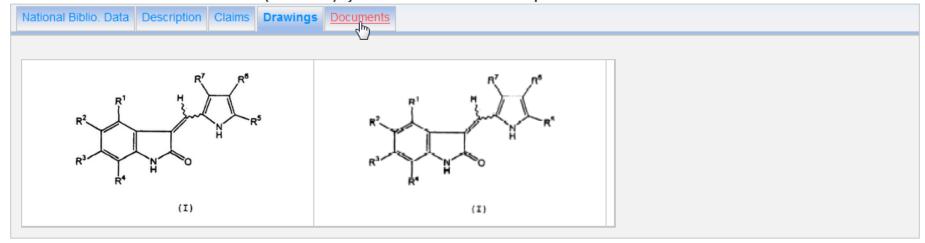
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#### 1. (CN1439005) Pyrrole substituted 2-indolinone protein kinase inhibitors





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Sunitinib Malate	Capsule	Oral	All	Pfizer	W00160814 - Pyrrole Substituted 2-Indalinone Protein Kinase Inhibitors	Pyrrole Substituted 2-Indolinone Protein Kinase Inhibitors
						Participant : Pfizer
						In order to contact Pfizer about this patent, you need to log in or create an account.

#### Abstract

The present invention relates to pyrrole substituted 2-indolinone compounds and their pharmaceutically acceptable salts which modulate the activity of protein kinases and therefore are expected to be useful in the prevention and treatment of protein kinase related cellular disorders such as cancer.

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Sunitinib Malate	Capsule	Oral	All	Pfizer	W00160814 - Pyrrole Substituted 2-Indolinone Protein Kinase Inhibitora



## Pyrrole Substituted 2-Indolinone Protein Kinase Inhibitors



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The present invention relates to pyrrole substituted 2-indolinone compounds and their pharmaceutically acceptable salts which modulate the activity of protein kinases and therefore are expected to be useful in the prevention and treatment of protein kinase related cellular disorders such as cancer.

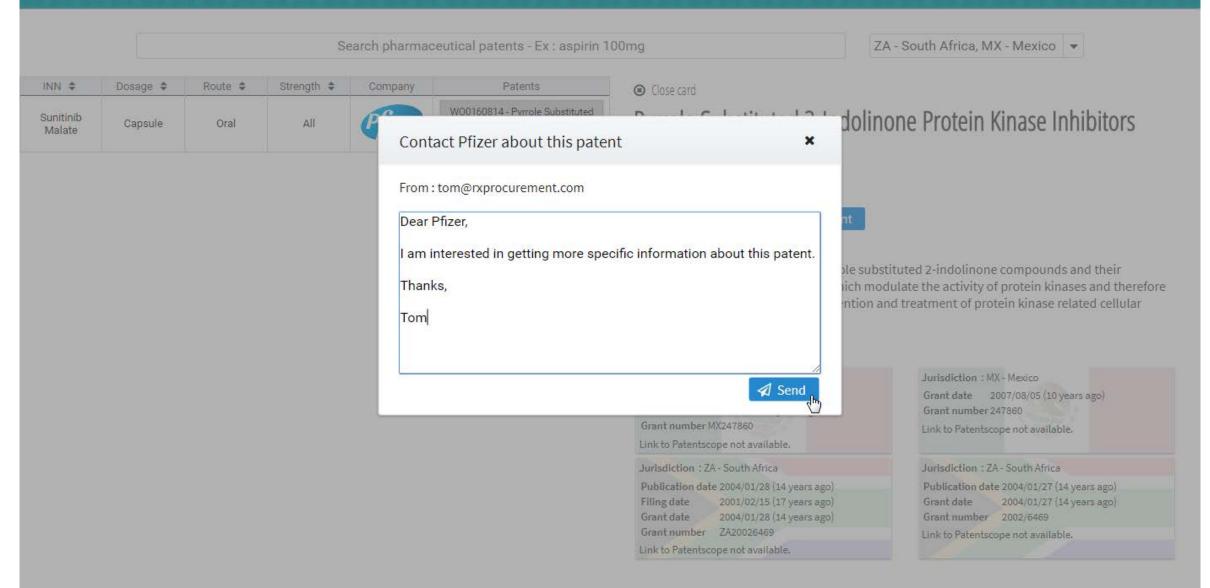


Jurisdiction: MX - Mexico
Grant date 2007/08/05 (10 years ago)
Grant number 247860
Link to Patentscope not available.

Jurisdiction: ZA - South Africa
Publication date 2004/01/27 (14 years ago)
Grant date 2004/01/27 (14 years ago)
Grant number 2002/6469
Link to Patentscope not available.



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## For further information

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## Thank you.

