

Title (en)
BREAST CANCER CELL GROWTH-INHIBITING ENZYME INHIBITORS, METHOD FOR THE PRODUCTION THEREOF, AND USE THEREOF

Title (de)
BRUSTKREBSZELLWACHSTUM-HEMMENDE ENZYMINHIBITOREN, VERFAHREN ZU IHRER HERSTELLUNG SOWIE DEREN VERWENDUNG

Title (fr)
INHIBITEURS ENZYMATIQUES DE LA CROISSANCE DES CELLULES DE CANCER DU SEIN, PROCÉDÉ POUR LES PRÉPARER ET LEUR UTILISATION

Publication
EP 3110421 A2 20170104 (DE)

Application
EP 14799883 A 20140821

Priority
• DE 102013010603 A 20130626
• IB 2014002141 W 20140821

Abstract (en)
[origin: WO2014207573A2] Breast cancer is, according to epidemiological data, the most common cancer in women. Particularly aggressive breast cancers are characterized in that they are invasive and metastatic. The treatment of said type of aggressive breast cancer is extremely difficult and very expensive due to the use of specific antibodies which can only be used after multiple positive histochemical testing has been carried out. The aim of the invention is to develop novel enzyme inhibitors in combination for inhibiting the enzymes which fight the aggressive breast cell growth both synergistically as well as additively. The claimed developed pyridoannelated indoles act in a selectively inhibiting manner on the enzyme HER2 and/or Brk in the nanomolar - picomolar concentration range in screening of more than 200 kinases of the human kinomes. The claimed developed enzyme inhibitors inhibit the growth of breast cancer cells in the nanomolar concentration range without displaying critical toxic effects. The 4-chloro-a-carboline can be derivatised in position 6 without forming auxiliary products and the derivatisation in position 4 with the aniline derivative with high purity with quantitative yields can also be carried. The invention also relates to the use in the medical field/oncology for the treatment of aggressive breast cancer.

IPC 8 full level
A61K 31/437 (2006.01); **A61K 31/4375** (2006.01); **A61P 35/00** (2006.01)

CPC (source: EP US)
A61K 31/437 (2013.01 - EP US); **A61K 31/4375** (2013.01 - EP US); **A61P 35/00** (2017.12 - EP); **A61P 43/00** (2017.12 - EP); **C07D 471/04** (2013.01 - EP US)

Citation (search report)
See references of WO 2014207573A2

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
DE 102013010603 A1 20141231; EP 3110421 A2 20170104; JP 2016530228 A 20160929; US 2016235723 A1 20160818; US 9901570 B2 20180227; WO 2014207573 A2 20141231; WO 2014207573 A3 20150514; WO 2014207573 A8 20150326

DOCDB simple family (application)
DE 102013010603 A 20130626; EP 14799883 A 20140821; IB 2014002141 W 20140821; JP 2016522895 A 20140821; US 201414900366 A 20140821