

Title (en)
SPECIFIC BIOMARKER SET FOR NON-INVASIVE DIAGNOSIS OF LIVER CANCER

Title (de)
SPEZIFISCHE BIOMARKER ZUR NICHT-INVASIVEN DIAGNOSE VON LEBERKREBS

Title (fr)
ENSEMBLE DE BIOMARQUEURS SPÉCIFIQUES POUR LE DIAGNOSTIC NON INVASIF D'UN CANCER DU FOIE

Publication
EP 3164711 A4 20180523 (EN)

Application
EP 14896556 A 20140731

Priority
• US 201414321867 A 20140702
• US 201414321870 A 20140702
• US 2014049038 W 20140731

Abstract (en)
[origin: WO2016003479A1] Cells within liver tumour mass comprise a unique set of proteins/tumour antigens when compared to the normal liver tissues epithelial cells juxtaposed to the tumour. The presence of tumour antigens couples the production of auto-antibodies against these tumour antigens. The present invention relates to the identification and elucidation of a protein set that can act as a novel marker set for liver cancer diagnosis and prognosis. Specifically, it relates to a kit that enables diagnostic and prognostic measurement of auto-antibodies in serum of liver cancer patients. The present invention provides a non-invasive, specific, sensitive, and cost effective detection and quantification method by evaluating a set of validated liver cancer proteins/tumour antigens, which includes Bmi-1, VCC1, SUMO-4, RhoA, TXN, ET-1, UBE2C, HDGF2, FGF21, LECT2, SOD1, STMN4, Midkine, IL-17A or IL26, to complement the conventional diagnostic methods.

IPC 8 full level
G01N 33/574 (2006.01); **G01N 33/564** (2006.01)

CPC (source: CN EP KR)
A61P 35/00 (2017.12 - EP); **G01N 33/533** (2013.01 - CN); **G01N 33/564** (2013.01 - EP KR); **G01N 33/57438** (2013.01 - CN EP KR); **G01N 33/57484** (2013.01 - KR); **G01N 33/57488** (2013.01 - CN); **G01N 33/582** (2013.01 - CN); **G01N 33/6803** (2013.01 - CN); **G01N 33/6863** (2013.01 - CN); **G01N 33/6869** (2013.01 - CN); **G01N 2800/56** (2013.01 - EP); **G01N 2800/60** (2013.01 - EP)

Citation (search report)
• [X] WO 2013049704 A2 20130404 - ARMUNE BIOSCIENCES INC [US], et al
• [Y] WO 2004052392 A2 20040624 - UNIV BIRMINGHAM [GB], et al
• [Y] US 2004059519 A1 20040325 - CHANDLER VAN S [US], et al
• [Y] US 2011281284 A1 20111117 - NAKAMURA HIDEJI [JP], et al
• [Y] KALPA PATEL ET AL: "Enhancement of a multianalyte serum biomarker panel to identify lymph node metastases in non-small cell lung cancer with circulating autoantibody biomarkers", INTERNATIONAL JOURNAL OF CANCER, vol. 129, no. 1, 9 November 2010 (2010-11-09), pages 133 - 142, XP055130158, ISSN: 0020-7136, DOI: 10.1002/ijc.25644
• [Y] DAI LIPING ET AL: "Using immunomic approach to enhance tumor-associated autoantibody detection in diagnosis of hepatocellular carcinoma", CLINICAL IMMUNOLOGY, vol. 152, no. 1, 22 March 2014 (2014-03-22), pages 127 - 139, XP028638419, ISSN: 1521-6616, DOI: 10.1016/J.CLIM.2014.03.007
• See references of WO 2016003479A1

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)
WO 2016003479 A1 20160107; AU 2014399919 A1 20160811; AU 2014399919 B2 20191024; AU 2017232129 A1 20171012; AU 2017232129 B2 20181025; CA 2939912 A1 20160107; CA 2939912 C 20190416; CN 105319362 A 20160210; CN 105319362 B 20180713; CN 107478842 A 20171215; CN 107478842 B 20201016; EP 3164711 A1 20170510; EP 3164711 A4 20180523; HK 1224370 A1 20170818; HK 1248803 A1 20181019; JP 2017520763 A 20170727; JP 2020160082 A 20201001; KR 102086788 B1 20200309; KR 20170021234 A 20170227; MY 179845 A 20201118; MY 195045 A 20230104; NZ 722492 A 20190927; SG 11201606106S A 20160830; TW 201602579 A 20160116; TW I700493 B 20200801; UY 36200 A 20160129

DOCDB simple family (application)
US 2014049038 W 20140731; AU 2014399919 A 20140731; AU 2017232129 A 20170921; CA 2939912 A 20140731; CN 201510379493 A 20150701; CN 201710545890 A 20150701; EP 14896556 A 20140731; HK 16106781 A 20160613; HK 18107745 A 20160613; JP 2016571689 A 20140731; JP 2020106731 A 20200622; KR 20167032783 A 20140731; MY PI2016002278 A 20140731; MY PI2017001446 A 20140731; NZ 72249214 A 20140731; SG 11201606106S A 20140731; TW 103126171 A 20140731; UY 36200 A 20150701