

Title (en)
BIOMARKERS AND USES THEREOF IN PROGNOSIS AND TREATMENT STRATEGIES FOR RIGHT-SIDE COLON CANCER DISEASE AND LEFT-SIDE COLON CANCER DISEASE

Title (de)
BIOMARKER UND IHRE VERWENDUNG FÜR PROGNOSE- UND BEHANDLUNGSSTRATEGIEN FÜR RECHTSSEITIGES UND LINKSSEITIGES KOLONKARZINOM

Title (fr)
BIOMARQUEURS ET LEURS UTILISATIONS DANS LE PRONOSTIC ET LES STRATÉGIES DE TRAITEMENT DU CANCER DU CÔLON DROIT ET DU CANCER DU CÔLON GAUCHE

Publication
EP 2655663 A2 20131030 (EN)

Application
EP 11850360 A 20111220

Priority

- US 201061459864 P 20101220
- US 2011066233 W 20111220

Abstract (en)
[origin: WO2012088146A2] Relapse risk in right-side colon tumors is characterized by accelerated cell cycle progression and elevated Wnt signaling. Left-side colon tumors with reduced Wnt signaling are more relapse prone. The single gene prognostic biomarker indicator for left side (LCC) colon cancer disease is NADPH oxidase 4 (NOX4), MMP3, or a set of both genes. A genetic prognostic biomarker indicator for right side (RCC) colon cancer disease is caudal type homeobox 2 (CDX2), FAM69A, or a set of both genes. NOX4 expression levels in human patients with LCC colon cancer disease is used in patient specific clinical treatment strategies. Colon cancer patients having LCC colon cancer disease where the tumor is found to have a low NOX4 expression level have a high 5- year relapse-free survival probability, while an elevated NOX4 expression level indicates a lower survival probability. CDX2 expression levels in human patients with RCC colon cancer disease is used in patient specific clinical treatment strategies. In RCC colon cancer disease, an elevated CDX2 expression level indicates a high 5-year relapse survival probability, while lower expression levels indicate a lower 5-year relapse-free survival probability. NOX4 (CDX2) is more prognostic for LCC (RCC) colon cancer treatments. NOX4 is expressed in adenocarcinoma. NOX4 siRNA is shown to cause a significant reduction in reactive oxidative species (ROS) production.

IPC 8 full level
C12N 15/11 (2006.01); **C12N 15/113** (2010.01); **C12Q 1/68** (2006.01); **G01N 33/574** (2006.01)

CPC (source: EP)
C12N 15/1137 (2013.01); **C12Q 1/6886** (2013.01); **C12Y 106/03001** (2013.01); **G01N 33/57419** (2013.01); **C12N 2310/14** (2013.01); **C12Q 2600/106** (2013.01); **C12Q 2600/118** (2013.01); **C12Q 2600/154** (2013.01); **C12Q 2600/158** (2013.01); **G01N 2800/54** (2013.01)

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 2012088146 A2 20120628; **WO 2012088146 A3 20121011**; EP 2655663 A2 20131030; EP 2655663 A4 20150128

DOCDB simple family (application)
US 2011066233 W 20111220; EP 11850360 A 20111220