

Title (en)  
METHOD FOR TREATING BREAST CANCER AND CHRONIC DISEASES

Title (de)  
VERFAHREN ZUR BEHANDLUNG VON BRUSTKREBS UND CHRONISCHEN ERKRANKUNGEN

Title (fr)  
PROCÉDÉ DE TRAITEMENT DU CANCER DU SEIN ET DE MALADIES CHRONIQUES

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Application  
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Abstract (en)  
[origin: WO2019094613A1] The disclosure provides a method of treating breast cancer, the method comprising administering to mammalian subject in need thereof an inhibitor of Receptor for Advanced Glycation End-product (RAGE). The disclosure further provides a method of inhibiting breast cancer metastasis, the method comprising administering to mammalian subject in need thereof an inhibitor of RAGE.

IPC 8 full level  
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Citation (search report)

- [XII] KWAK T ET AL: "Targeting of RAGE-ligand signaling impairs breast cancer cell invasion and metastasis", ONCOGENE, vol. 36, no. 11, 26 September 2016 (2016-09-26), London, pages 1559 - 1572, XP055850529, ISSN: 0950-9232, Retrieved from the Internet <URL:https://www.nature.com/articles/onc2016324.pdf> DOI: 10.1038/onc.2016.324
- [XI] PENGFEI YU ET AL: "Matrine suppresses breast cancer cell proliferation and invasion via VEGF-Akt-NF- $\kappa$ B signaling", CYTOTECHNOLOGY, KLUWER ACADEMIC PUBLISHERS, DO, vol. 59, no. 3, 17 September 2009 (2009-09-17), pages 219 - 229, XP019747692, ISSN: 1573-0778, DOI: 10.1007/S10616-009-9225-9
- [XI] LI HALI ET AL: "Therapeutic Effects of Matrine on Primary and Metastatic Breast Cancer", THE AMERICAN JOURNAL OF CHINESE MEDICINE, vol. 38, no. 06, 5 January 2010 (2010-01-05), US, pages 1115 - 1130, XP055853518, ISSN: 0192-415X, Retrieved from the Internet <URL:http://dx.doi.org/10.1142/S0192415X10008512> DOI: 10.1142/S0192415X10008512
- [XI] DHUMALE SUHASHINI S. ET AL: "Quercetin protects necrotic insult and promotes apoptosis by attenuating the expression of RAGE and its ligand HMGB1 in human breast adenocarcinoma cells : QUERCETIN PROTECTS NECROTIC INSULT AND PROMOTES APOPTOSIS", IUBMB LIFE, vol. 67, no. 5, 1 May 2015 (2015-05-01), pages 361 - 373, XP055850522, ISSN: 1521-6543, Retrieved from the Internet <URL:https://api.wiley.com/onlinelibrary/tdm/v1/articles/10.1002%2Fiub.1379> DOI: 10.1002/iub.1379
- [XI] ISHIBASHI Y. ET AL: "Metformin Inhibits Advanced Glycation End Products (AGEs)-induced Growth and VEGF Expression in MCF-7 Breast Cancer Cells by Suppressing AGEs Receptor Expression via AMP-activated Protein Kinase", HORMONE AND METABOLIC RESEARCH, vol. 45, no. 05, 13 May 2013 (2013-05-13), DE, pages 387 - 390, XP055850890, ISSN: 0018-5043, Retrieved from the Internet <URL:http://dx.doi.org/10.1055/s-0032-1331204> DOI: 10.1055/s-0032-1331204
- [I] JOSEPH K P ET AL: "Soluble receptor for advanced glycation endproducts (sRAGE) effectively reduces tumor growth as a single agent and in combination with doxorubicin in a spontaneous mammary tumor model", JOURNAL OF SURGICAL RESEARCH, ACADEMIC PRESS INC., SAN DIEGO, CA, US, vol. 114, no. 2, 8 June 2017 (2017-06-08), pages 251, XP085055635, ISSN: 0022-4804, DOI: 10.1016/J.JSS.2003.08.164
- [IY] GANJU RAMESH K: "Receptor for Advanced Glycation End Products (RAGE) as a Novel Target for Inhibiting Breast Cancer Bone Metastasis PRINCIPAL INVESTIGATOR: DISTRIBUTION STATEMENT: Approved for Public Release; Distribution Unlimited", 1 April 2013 (2013-04-01), XP055853322, Retrieved from the Internet <URL:https://apps.dtic.mil/sti/pdfs/ADA592353.pdf> [retrieved on 20211020]
- [XI] ZHANG HE-FANG ET AL: "Protective effects of matrine against progression of high-fructose diet-induced steatohepatitis by enhancing antioxidant and anti-inflammatory defences involving Nrf2 translocation", FOOD AND CHEMICAL TOXICOLOGY, PERGAMON, GB, vol. 55, 4 January 2013 (2013-01-04), pages 70 - 77, XP028992288, ISSN: 0278-6915, DOI: 10.1016/J.FCT.2012.12.043
- [XY] WU JING ET AL: "Pentoxifylline alleviates high-fat diet-induced non-alcoholic steatohepatitis and early atherosclerosis in rats by inhibiting AGE and RAGE expression", ACTA PHARMACOLOGICA SINICA, vol. 31, no. 10, 1 October 2010 (2010-10-01), GB, pages 1367 - 1375, XP055853275, ISSN: 1671-4083, Retrieved from the Internet <URL:https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4012909/pdf/aps2010110a.pdf> DOI: 10.1038/aps.2010.110
- [X] SHAHINUL ALAM ET AL: "Effect of telmisartan on histological activity and fibrosis of non-alcoholic steatohepatitis: A 1-year randomized control trial", SAUDI JOURNAL OF GASTROENTEROLOGY, vol. 22, no. 1, 1 January 2016 (2016-01-01), pages 69, XP055333534, ISSN: 1319-3767, DOI: 10.4103/1319-3767.173762
- [A] NAKAMURA ET AL: "Telmisartan inhibits expression of a receptor for advanced glycation end products (RAGE) in angiotensin-II-exposed endothelial cells and decreases serum levels of soluble RAGE in patients with essential hypertension", MICROVASCULAR RESEARCH, ACADEMIC PRESS, US, vol. 70, no. 3, 1 November 2005 (2005-11-01), pages 137 - 141, XP005140749, ISSN: 0026-2862, DOI: 10.1016/J.MVR.2005.10.002
- [A] SALVATORE BONGARZONE ET AL: "Targeting the Receptor for Advanced Glycation Endproducts (RAGE): A Medicinal Chemistry Perspective", JOURNAL OF MEDICINAL CHEMISTRY, vol. 60, no. 17, 19 May 2017 (2017-05-19), US, pages 7213 - 7232, XP055575572, ISSN: 0022-2623, DOI: 10.1021/acs.jmedchem.7b00058
- See references of WO 2019094613A1

Designated contracting state (EPC)  
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