(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
19 January 2006 (19.01.2006)

PCT

(10) International Publication Number
WO 2006/005759 A2

(51) International Patent Classification:
A61K 47/48 (2006.01) *A61P 35/00* (2006.01)
A61P 5/00 (2006.01)

(21) International Application Number:
PCT/EP2005/053338

(22) International Filing Date: 12 July 2005 (12.07.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
04103318.4 13 July 2004 (13.07.2004) EP

(71) Applicant *(for all designated States except US)*: **ORIDIS BIOMED FORSCHUNGS- UND ENTWICKLUNGS GMBH** [AT/AT]; Stiftingtalstrasse 3-5, A-8010 Graz (AT).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **FRÖHLICH, Eleonore** [DE/AT]; Quergasse 21, A-8047 Graz (AT). **KVIETIKOVA, Ivica** [SK/AT]; Schiessstattgasse 19, A-8010 Graz (AT). **ZATLOUKAL, Kurt** [AT/AT]; Sternwirtweg 22c, A-8047 Graz (AT). **SCHATZ, Gottfried** [CH/CH]; Unterer Rebbergweg 33, CH-4153 Reinach (CH). **DENK, Helmut** [AT/AT]; Frankensteingasse 18, A-8047 Graz (AT). **STUMPTNER, Cornelia** [AT/AT]; Heinrichstrasse 69a/7, A-8010 Graz (AT). **BUCK, Charles** [US/US]; 2512 Nottingham Place, West Lafayette, Indiana 47906 (US).

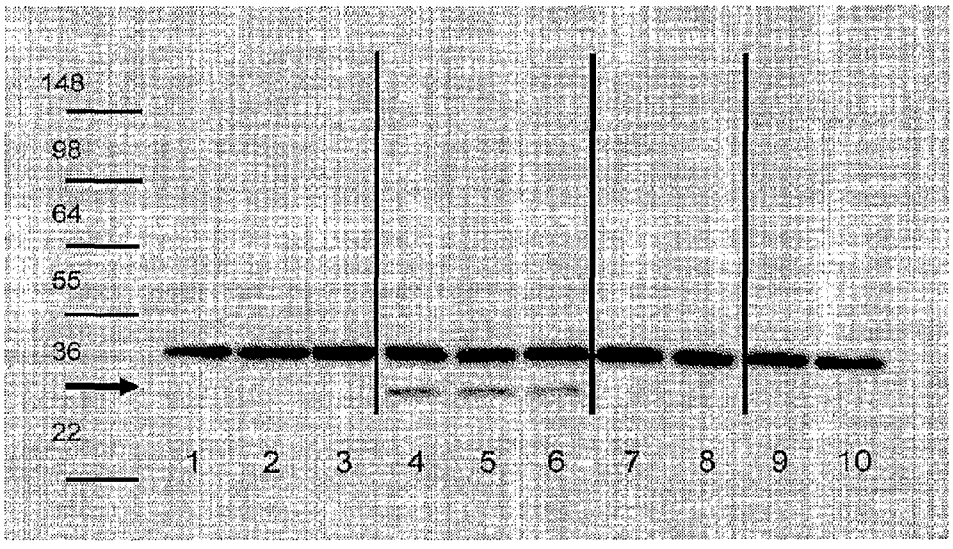
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *without international search report and to be republished upon receipt of that report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) **Title:** USE OF MITOCHONDRIALLY TARGETED ANTIOXIDANT IN THE TREATMENT OF LIVER DISEASES AND EPITHELIAL CANCERS.



(57) **Abstract:** The present invention relates to the use of a mitochondrially targeted antioxidant, e.g. derivatives of vitamin E, coenzyme Q_{10} or a glutathione peroxidase mimetic, in the treatment and prevention of liver diseases and/or epithelial cancers. The present invention also relates to pharmaceutical compositions containing the antioxidant(s) intended for such use. Furthermore the invention relates to the manufacture of medicaments containing the antioxidant(s) useful for such prevention and treatment.

WO 2006/005759 A2