

Title (en)

UPREGULATION OF TYPE III ENDOTHELIAL CELL NITRIC OXIDE SYNTHASE BY HMG-CoA REDUCTASE INHIBITORS

Title (de)

STEIGERUNG DER TYPE III ENDOTHELIALZELL-STICKSTOFFOXID-SYNTHASE DURCH HMG-COA-REDUKTASE HEMMER

Title (fr)

REGULATION POSITIVE DE L'OXYDE NITRIQUE SYNTHASE DES CELLULES ENDOTHELIALES DE TYPE III PAR DES INHIBITEURS DE LA HMG-COA REDUCTASE

Publication

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Application

EP 00916511 A 20000317

Priority

- US 0007221 W 20000317
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Abstract (en)

[origin: WO0056403A1] A new use for HMG-CoA reductase inhibitors is provided. In the instant invention, HMG-CoA reductase inhibitors are found to upregulate endothelial cell Nitric Oxide Synthase activity through a mechanism other than preventing the formation of oxidative-LDL. As a result, HMG-CoA reductase inhibitors are useful in treating or preventing conditions that result from the abnormally low expression and/or activity of endothelial cell Nitric Oxide Synthase. Such conditions include pulmonary hypertension, ischemic stroke, impotence, heart failure, hypoxia-induced conditions, insulin deficiency, progressive renal disease, gastric or esophageal motility syndrome, etc. Subjects thought to benefit mostly from such treatments include nonhyperlipidemics and nonhypercholesteroleemics, but not necessarily exclude hyperlipidemics and hypercholesteroleemics.

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Citation (search report)

- [X] EP 0671171 A1 19950913 - BRISTOL MYERS SQUIBB CO [US]
- [XP] WO 9918952 A1 19990422 - BRIGHAM & WOMENS HOSPITAL [US], et al
- [X] LAUFS ET AL: "inhibition of HMG-CoA reductase blocks hypoxia-mediated down-regulation of endothelial nitric oxide synthase", JOURNAL OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS, BALTIMORE, MD, US, vol. 272, no. 50, 12 December 1997 (1997-12-12), pages 31725 - 31729, XP002091893, ISSN: 0021-9258
- [X] ENDRES ET AL: "stroke protection by HMG-CoA reductase inhibitors mediated by endothelial nitric oxide synthase", PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE. WASHINGTON, US, vol. 95, no. 15, 1 July 1998 (1998-07-01), pages 8880 - 8885, XP002091890, ISSN: 0027-8424
- [A] BOEGER RAINER H ET AL: "Dietary L-arginine reduces the progression of atherosclerosis in cholesterol-fed rabbits: Comparison with lovastatin", CIRCULATION, vol. 96, no. 4, 1997, pages 1282 - 1290, XP002302014, ISSN: 0009-7322
- See references of WO 0056403A1

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