

Renin

[View the current Renin InDepth page on BioPortfolio.com \(PDF\)](#)

(<http://www.bioportfolio.com/indepth/Renin.html>) - Regularly Updated.

Renin, also known as angiotensinogenase, is a circulating enzyme that participates in the renin-angiotensin system that mediates extracellular volume, arterial vasoconstriction, and consequently mean arterial blood pressure. The enzyme is secreted by the kidneys from specialized juxtaglomerular cells in response to decreases in glomerular filtration rate, diminished filtered sodium chloride and sympathetic nervous system innervation. The enzyme circulates in the blood stream and hydrolyzes angiotensinogen secreted from the liver into the peptide angiotensin I. Angiotensin I is further cleaved in the lungs by endothelial bound angiotensin converting enzyme into angiotensin II, the final active peptide. The normal concentration in adult human plasma is 1.98-24.6 ng/L in the upright position. ([From the Wikipedia article Renin.](#))



Recent Publications on Renin:

- [Comparison of the long-term effects of candesartan and olmesartan on plasma angiotensin II and left ventricular mass index in patients with hypertension.](#)
*In general, treatment with most angiotensin receptor blockers (ARBs)...*21st November, 2009
Department of Cardiovascular and Respiratory Medicine, Shiga University of- Hypertens Res. 2009 Nov 20. ([DOI Direct Link](#))
- [Inappropriately high circulating and intrarenal angiotensin II levels during dietary salt loading exacerbate hypertension in Cyp1a1-Ren-2 transgenic rats.](#)
*OBJECTIVE: We evaluated the effects of salt restriction and of increasing...*21st November, 2009
aDepartment for Experimental Medicine, Institute for Clinical and- J Hypertens. 2009 Nov 18. ([DOI Direct Link](#))
- [Brain-Selective Overexpression of Human Angiotensin-Converting Enzyme Type 2 Attenuates Neurogenic Hypertension.](#)
*Rationale: Angiotensin converting enzyme type 2 (ACE2) is a new member of...*21st November, 2009
Department of Pharmacology & Experimental Therapeutics and Cardiovascular- Circ Res. 2009 Nov 19. ([DOI Direct Link](#))
- [Alterations in Lung Mast Cell Populations in Patients with COPD.](#)
*RATIONALE: Mast cells have important roles in innate immunity and tissue...*21st November, 2009
Department of Respiratory Medicine and Allergology, Lund University- Am J Respir Crit Care Med. 2009 Nov 19. ([DOI Direct Link](#))
- [Antifibrotic Effects of Aldosterone Receptor Blocker \(Spironolactone\) in Patients with Chronic Kidney Disease.](#)
*Aims. Proteinuria and transforming growth factor beta (TGF-beta) are...*21st November, 2009
Konya Research and Training Hospital, Nephrology Department, Konya,- Ren Fail. 2009 Jan;31(9):779-784. ([DOI Direct Link](#))
- [Prehypertension: is it relevant for nephrologists?](#)

- Blood pressure (BP) in the prehypertensive range is associated with an...*20th November, 2009
Hypertensive Diseases Unit, Section of Endocrinology, Diabetes and- Kidney Int. 2009 Nov 18. ([DOI Direct Link](#))
- [Renin-angiotensin system in kidney development: renal tubular dysgenesis.](#)
*Autosomal recessive renal tubular dysgenesis (RTD) is a severe disorder of...*20th November, 2009
[1] INSERM, U574, Hopital Necker Enfants Malades, Paris, France [2]- Kidney Int. 2009 Nov 18. ([DOI Direct Link](#))
 - [Brain Renin-Angiotensin System: Fetal Epigenetic Programming by Maternal Protein Restriction During Pregnancy.](#)
*Objective: Maternal protein malnutrition during pregnancy can lead to...*20th November, 2009
- *Reprod Sci.* 2009 Nov 18. ([DOI Direct Link](#))
 - [ACE2: A new target for neurogenic hypertension.](#)
*Overactivity of the renin-angiotensin system (RAS) is involved in the...*20th November, 2009
1 LSUHSC;- *Exp Physiol.* 2009 Nov 18. ([DOI Direct Link](#))
 - [Prospective, randomized, single-blind comparison of effects of 6 months of treatment with telmisartan versus enalapril on high-molecular-weight adiponectin concentrations in patients with coronary artery disease.](#)
*Background: High-molecular-weight (HMW) adiponectin has important...*20th November, 2009
Division of Cardiology, Department of Internal Medicine and Memorial Heart- *Clin Ther.* 2009 Oct;31(10):2113-2125. ([DOI Direct Link](#))
 - [The rationale and design of the antihypertensives and vascular, endothelial, and cognitive function \(AVEC\) trial in elderly hypertensives with early cognitive impairment: Role of the renin angiotensin system inhibition.](#)
*ABSTRACT: BACKGROUND: Prior evidence suggests that the renin angiotensin...*20th November, 2009
- *BMC Geriatr.* 2009 Nov 18;9(1):48. ([DOI Direct Link](#))
 - [Cholinergic signal activated renin angiotensin system associated with cardiovascular changes in the ovine fetus.](#)
*Abstract Aim: Cholinergic regulation is important in the control of...*20th November, 2009
Perinatal Origin Diseases Research Institute, First Affiliated Hospital of- *J Perinat Med.* 2009 Nov 18. ([DOI Direct Link](#))
 - [Choosing among renin-angiotensin system blockers for the management of hypertension: from pharmacology to clinical efficacy.](#)
*Abstract Background: Hypertension is an important healthcare challenge,...*20th November, 2009
Orange County Research Center, Tustin, CA, USA.- *Curr Med Res Opin.* 2009 Nov 18. ([DOI Direct Link](#))
 - [Inhibiting the renin-angiotensin system in patients with type 1 diabetes: is it worth it?](#)
*Abstract Background: Hypertension is an important healthcare challenge,...*19th November, 2009
- *Pol Arch Med Wewn.* 2009 Nov;119(11):692-693.
 - [Transcriptional and physiological responses to chronic ACTH treatment by the mouse kidney.](#)
*We investigated the effects on urinary steroid and electrolyte excretion...*19th November, 2009
University of Edinburgh.- *Physiol Genomics.* 2009 Nov 17. ([DOI Direct Link](#))

BioNews Results for Renin

- [Valsartan and aliskiren \(Valturna\): Combination of an angiotensin receptor blocker with direct renin inhibitor approved for the treatment of hypertension](#)
Modern Medicine: Nov 20 2009 4:55PM Matching: renin
- [Choosing among renin-angiotensin system blockers for the management of hypertension: from pharmacology to clinical efficacy](#)

- MDLinx: Nov 20 2009 12:07PM Matching: renin
- [Dalcetrapib: no off-target toxicity on blood pressure or on genes related to the renin-angiotensin-aldosterone system in rats](#)
Laboratory Investigation: Nov 18 2009 2:33AM Matching: renin
 - [Aldosterone status associated with insulin resistance in patients with heart failure data from the ALOFT study](#)
British Journal of the Heart: Nov 18 2009 7:09PM Matching: renin
 - [AHA: Tripling ARB Dose Improves HF Outcomes](#)
MedPage Today: Nov 17 2009 1:02PM Matching: renin
 - [Plasma renin activity associated with cardiovascular events and mortality in HOPE](#)
Theheart.org: Nov 17 2009 8:21AM Matching: renin
 - [Plasma Renin Activity Associated With Cardiovascular Events and Mortality in HOPE](#)
Medscape: Nov 16 2009 8:20PM Matching: renin
 - [New Fluorescence Molecular Imaging Agent Released at AHA](#)
Diagnostic & Invasive Cardiology: Nov 13 2009 4:15PM Matching: renin
 - [Vitae Pharmaceuticals to Present at Windhover's Annual Therapeutic Area Partnerships Conference](#)
Therapeutics Daily: Nov 12 2009 5:01AM Matching: renin
 - [New Cat B 750 FAST imaging agent launched by VisEn Medical](#)
News-Medical.Net: Nov 12 2009 2:46PM Matching: renin
 - [VisEn Launches New Cat B 750 Fast\(TM\) Fluorescence Molecular Imaging Agent at American Heart Association Meeti](#)
Therapeutics Daily: Nov 12 2009 2:24PM Matching: renin
 - [VisEn Launches New Cat B 750 Fast Fluorescence Molecular Imaging Agent at American Heart Association Meeting](#)
Therapeutics Daily: Nov 12 2009 2:24PM Matching: renin
 - [VisEn Launches New Cat B 750 Fast Fluorescence Molecular Imaging Agent at American Heart Association Meeting](#)
Pharma Live: Nov 12 2009 2:11PM Matching: renin
 - [Vitae Pharmaceuticals to Present at Windhovers Annual Therapeutic Area Partnerships Conference](#)
Yahoo! Canada: Nov 11 2009 3:11PM Matching: renin
 - [Vitae Pharmaceuticals to Present at Windhover's Annual Therapeutic Area Partnerships Conference](#)
FinanzNachrichten.de: Nov 11 2009 12:46PM Matching: renin

Renin Patents:



- 7592354- [Heterocyclic aromatic compounds useful as growth hormone secretagogues](#)
- 7598250- [Cyclic amine BACE-1 inhibitors having a heterocyclic substituent](#)
- 7598252- [Compounds specific to adenosine A₁ receptors and uses thereof](#)
- 7598281- [Arylcycloalkyl-substituted alkanolic acid derivatives useful as peroxisome proliferator-activated receptor \(PPAR\) ligands for the treatment of hyperlipidemia and diabetes](#)
- 7598364- [Plasmid encoding canine BMP-7](#)
- 7598391- [Heteroaryl-ureas and their use as glucokinase activators](#)
- 7599933- [Coupled two-way clustering analysis of data](#)
- 7601528- [Crystallization and structure determination of glycosylated human beta secretase, an enzyme](#)

[implicated in alzheimer's disease](#)

- 7601706- [Bile-acid conjugates providing for sustained systemic concentration of drugs](#)
- 7601708- [Bile-acid derived compounds for providing sustained systemic concentrations of drugs after oral administration](#)
- 7601828- [Estimation method, human estrogen receptor alpha gene, genomic DNA, and diagnostic marker](#)
- 7598235- [Bile-acid conjugates for providing sustained systemic concentrations of drugs](#)
- 7598231- [Tricyclic compound, compositions, and methods](#)
- 7598228- [Therapeutic methods and agents for diseases associated with decreased expression of AOP-1 gene or AOP-1](#)
- 7592361- [Indole acetic acid derivatives and their use as pharmaceutical agents](#)
- 7592368- [Sulphonamide derivatives as prodrugs of aspartyl protease inhibitors](#)
- 7592439- [Method for making monoclonal antibodies and cross-reactive antibodies obtainable by the method](#)
- 7595299- [Peptides as NS3-serine protease inhibitors of hepatitis C virus](#)
- 7595313- [Nitric oxide donating diuretic compounds, compositions and methods of use](#)
- 7595316- [Heteroaryloxy nitrogenous saturated heterocyclic derivative](#)
- 7595375- [Fluorescent protein](#)
- 7596836- [Nose and throat anti-influenza solution and method of use](#)
- 7597884- [Hyperglycosylated polypeptide variants and methods of use](#)
- 7598029- [Method for identifying HIV-1 protease inhibitors with reduced metabolic affects](#)
- 7601846- [Compounds having activity as inhibitors of apoptosis](#)
- 7604628- [Multi-cap reservoir devices for controlled release or exposure of reservoir contents](#)
- 7615664- [Phenylloctanamides](#)
- 7617005- [Methods and apparatus for thermally-induced renal neuromodulation](#)
- 7618452- [Artificially produced, three-dimensional muscle tissue](#)
- 7618622- [Treatment of Parkinson's disease and related disorders using postpartum derived cells](#)
- 7618775- [Expanding the eukaryotic genetic code](#)
- 7618799- [Bacterial leader sequences for increased expression](#)
- 7618980- [Pyrrolo\(oxo\)quinolines as 5HT ligands](#)
- 7618987- [Acylated piperidine derivatives as melanocortin 4-receptor agonists](#)
- 7619069- [Antibodies to TGF-beta 1](#)
- 7620451- [Methods and apparatus for pulsed electric field neuromodulation via an intra-to-extravascular approach](#)
- 7612088- [Heterocyclic compounds and their use as aldosterone synthase inhibitors](#)
- 7611722- [Dosage form with a core tablet of active ingredient sheathed in a compressed annular body of powder or granular material, and process and tooling for producing it](#)
- 7611690- [Nanoparticles for protein drug delivery](#)
- 7604795- [Nanoparticles for protein drug delivery](#)
- 7604954- [Method for evaluating kidney function in a feline](#)
- 7604959- [Cell-based assays employing voltage and calcium dyes](#)
- 7604974- [Bacillus 029cel cellulase](#)
- 7608406- [Diagnostic markers of stroke and cerebral injury and methods of use thereof](#)
- 7608423- [Expanding the eukaryotic genetic code](#)
- 7608429- [Methods and compositions for increasing antibody production](#)
- 7608632- [Sulfonamide inhibitors of aspartyl protease](#)
- 7608749- [Monitoring APP cleavage in transgenic rodents comprising an APP Swedish mutation](#)
- 7608752- [Gene targeting using replicating DNA molecules](#)
- 7620502- [Methods for identifying sets of oligonucleotides for use in an in vitro recombination procedure](#)

Resources from the [NCBI](#) used in this document, [NCBI's standard disclaimer applies](#).

Nothing in this document should be used in place of personal medical advice from your own qualified medical practitioner. See BioPortfolio.com [User Agreement](#)

Send comments and feedback to:

Peter Barfoot Managing Director, BioPortfolio Ltd.

UK Tel: (+44) 1300 321501

USA Voicemail and Fax: (+1) 415 680 2472

[Peter Barfoot peter.barfoot@bioportfolio.com](mailto:peter.barfoot@bioportfolio.com)

All rights reserved. All other trademarks recognized.

BioPortfolio Limited is registered in England & Wales at Stafford House, 10 Prince of Wales Road, Dorchester, Dorset, DT1 1PW, UK. No.3312883 VAT No. GB 744 6483 10

Copyright 1997-2009 - BioPortfolio Limited.

