Protein kinase C plays an essential role in sildenafil-induced cardioprotection in rabbits

DOI: 10.1152/ajpheart.01040.2003
American Journal of Physiology - Heart and Circulatory Physiology, 2004, 286, H1455-60.

#	Paper	IF	Citations
64	Bmx, a member of the Tec family of nonreceptor tyrosine kinases, is a novel participant in pharmacological cardioprotection. *American Journal of Physiology - Heart and Circulatory Physiology*, **2004**, 287, H2364-6	5.2	11
63	The potential use of type-5 phosphodiesterase inhibitors in coronary artery bypass graft surgery. *Chest*, **2005**, 128, 3065-73	5.3	31
62	Effects of sildenafil citrate on hepatic function and regeneration in normal and alcohol-fed rats. *Liver International*, **2005**, 25, 913-9	7.9	8
61	Pharmacological preconditioning with sildenafil: Basic mechanisms and clinical implications. *Vascular Pharmacology*, **2005**, 42, 219-32	5.9	155
60	Effect of sildenafil on reperfusion function, infarct size, and cyclic nucleotide levels in the isolated rat heart model. *Cardiovascular Drugs and Therapy*, **2005**, 19, 23-31	3.9	40
59	Platelet-activating factor induces cardioprotection in isolated rat heart akin to ischemic preconditioning: role of phosphoinositide 3-kinase and protein kinase C activation. *American Journal of Physiology - Heart and Circulatory Physiology*, **2005**, 288, H2512-20	5.2	39
58	Sildenafil citrate (viagra) induces cardioprotective effects after ischemia/reperfusion injury in infant rabbits. *Pediatric Research*, **2005**, 57, 22-7	3.2	42
57	Inhibitors of cyclic nucleotide phosphodiesterase 3 and 5 as therapeutic agents in heart failure. *Expert Opinion on Investigational Drugs*, **2006**, 15, 733-42	5.9	26
56	Enhanced cardioprotection against ischemia-reperfusion injury with combining sildenafil with low-dose atorvastatin. *Cardiovascular Drugs and Therapy*, **2006**, 20, 27-36	3.9	37
55	cAMP and cGMP signaling cross-talk: role of phosphodiesterases and implications for cardiac pathophysiology. *Circulation Research*, **2007**, 100, 1569-78	15.7	255
54	Sildenafil promotes ischemia-induced angiogenesis through a PKG-dependent pathway. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2007**, 27, 1947-54	9.4	69
53	Sildenafil-mediated acute cardioprotection is independent of the NO/cGMP pathway. *American Journal of Physiology - Heart and Circulatory Physiology*, **2007**, 292, H342-7	5.2	55
52	Phosphodiesterase type 5: expanding roles in cardiovascular regulation. *Circulation Research*, **2007**, 101, 1084-95	15.7	164
51	Diabetes abolishes sildenafil-induced cGMP-dependent protein kinase-I expression and cardioprotection. *Journal of Cardiovascular Pharmacology*, **2007**, 50, 670-6	3.1	15
50	Cellular Pathways and Molecular Events in Cardioprotection. **2007**, 281-315		
49	Sildenafil and vardenafil but not nitroglycerin limit myocardial infarction through opening of mitochondrial K(ATP) channels when administered at reperfusion following ischemia in rabbits. *Journal of Molecular and Cellular Cardiology*, **2007**, 42, 453-8	5.8	105
48	Adenosine A(1) receptor mediates delayed cardioprotective effect of sildenafil in mouse. *Journal of Molecular and Cellular Cardiology*, **2007**, 43, 545-51	5.8	16

47	Protein kinase G-dependent cardioprotective mechanism of phosphodiesterase-5 inhibition involves phosphorylation of ERK and GSK3beta. *Journal of Biological Chemistry*, **2008**, 283, 29572-85	5.4	153
46	cGMP-hydrolytic activity and its inhibition by sildenafil in normal and failing human and mouse myocardium. *Journal of Pharmacology and Experimental Therapeutics*, **2009**, 330, 884-91	4.7	59
45	Long-acting phosphodiesterase-5 inhibitor, tadalafil, induces sustained cardioprotection against lethal ischemic injury. *American Journal of Physiology - Heart and Circulatory Physiology*, **2009**, 297, H387-91	5.2	22
44	ERK phosphorylation mediates sildenafil-induced myocardial protection against ischemia-reperfusion injury in mice. *American Journal of Physiology - Heart and Circulatory Physiology*, **2009**, 296, H1236-43	5.2	110
43	Pretreatment of sildenafil attenuates ischemia-reperfusion renal injury in rats. *American Journal of Physiology - Renal Physiology*, **2009**, 297, F362-70	4.3	90
42	Phosphodiesterase-5 inhibitor, tadalafil, protects against myocardial ischemia/reperfusion through protein-kinase g-dependent generation of hydrogen sulfide. *Circulation*, **2009**, 120, S31-6	16.7	123
41	Dose-dependent effects of a selective phosphodiesterase-5-inhibitor on endothelial dysfunction induced by peroxynitrite in rat aorta. *European Journal of Pharmacology*, **2009**, 615, 155-62	5.3	28
40	Phosphodiesterase inhibition in heart failure. *Heart Failure Reviews*, **2009**, 14, 255-63	5	51
39	Pivotal effects of phosphodiesterase inhibitors on myocyte contractility and viability in normal and ischemic hearts. *Acta Pharmacologica Sinica*, **2009**, 30, 1-24	8	45
38	Phosphodiesterase 5 inhibitors prevent 3,4-methylenedioxymethamphetamine-induced 5-HT deficits in the rat. *Journal of Neurochemistry*, **2009**, 108, 755-66	6	39
37	Sildenafil attenuates renal injury in an experimental model of rat cisplatin-induced nephrotoxicity. *Toxicology*, **2009**, 257, 137-43	4.4	61
36	Phosphodiesterase 5 inhibitors: are they cardioprotective?. *Cardiovascular Research*, **2009**, 83, 204-12	9.9	29
35	Sildenafil citrate augments myocardial protection in heart transplantation. *Transplantation*, **2010**, 89, 169-77	1.8	16
34	Targeting cyclic nucleotide phosphodiesterase in the heart: therapeutic implications. *Journal of Cardiovascular Translational Research*, **2010**, 3, 507-15	3.3	38
33	Protein Kinases as Drug Development Targets for Heart Disease Therapy. *Pharmaceuticals*, **2010**, 3, 2111-2145	5.2	22
32	cGMP-dependent protein kinases and cGMP phosphodiesterases in nitric oxide and cGMP action. *Pharmacological Reviews*, **2010**, 62, 525-63	22.5	677
31	Sildenafil increases chemotherapeutic efficacy of doxorubicin in prostate cancer and ameliorates cardiac dysfunction. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 18202-7	11.5	116
30	Autophagy and protein kinase C are required for cardioprotection by sulfaphenazole. *American Journal of Physiology - Heart and Circulatory Physiology*, **2010**, 298, H570-9	5.2	71

29	Effects of sildenafil in combination with angiotensin-converting enzyme inhibitor on limiting infarct expansion in a porcine model of acute myocardial infarction. *International Journal of Cardiology*, **2011**, 146, 459-60	3.2	5
28	Renoprotective effects of sildenafil in DOCA-salt hypertensive rats. *Kidney and Blood Pressure Research*, **2012**, 36, 248-57	3.1	28
27	Effect of Sildenafil on Heart Nitric Oxide Metabolism and Mitochondrial Function. *Oxidative Stress and Disease*, **2012**, 169-188		
26	An update on cardioprotection: a review of the latest adjunctive therapies to limit myocardial infarction size in clinical trials. *Journal of the American College of Cardiology*, **2012**, 59, 969-78	15.1	166
25	Cyclic guanosine monophosphate signaling and phosphodiesterase-5 inhibitors in cardioprotection. *Journal of the American College of Cardiology*, **2012**, 59, 1921-7	15.1	58
24	Modulation of the ASK1-MKK3/6-p38/MAPK signalling pathway mediates sildenafil protection against chemical hypoxia caused by malonate. *British Journal of Pharmacology*, **2013**, 168, 1820-34	8.6	15
23	Low molecular weight fibroblast growth factor-2 signals via protein kinase C and myofibrillar proteins to protect against postischemic cardiac dysfunction. *American Journal of Physiology - Heart and Circulatory Physiology*, **2013**, 304, H1382-96	5.2	10
22	The safety of preoperative vardenafil in patients undergoing coronary artery bypass graft surgery. *Journal of Cardiovascular Pharmacology*, **2013**, 62, 106-9	3.1	3
21	Sildenafil attenuates hepatocellular injury after liver ischemia reperfusion in rats: a preliminary study. *Oxidative Medicine and Cellular Longevity*, **2014**, 2014, 161942	6.7	20
20	Novel approaches and opportunities for cardioprotective signaling through 3Ý5Ýcyclic guanosine monophosphate manipulation. *Journal of Cardiovascular Pharmacology and Therapeutics*, **2014**, 19, 269-82	2.6	16
19	The cross talk between cGMP signal pathway and PKC in pulmonary endothelial cell angiogenesis. *International Journal of Molecular Sciences*, **2014**, 15, 10185-98	6.3	4
18	Effects of sildenafil on nanostructural and nanomechanical changes in mitochondria in an ischaemia-reperfusion rat model. *Clinical and Experimental Pharmacology and Physiology*, **2014**, 41, 763-8	3	8
17	PDE5 inhibitors enhance the lethality of standard of care chemotherapy in pediatric CNS tumor cells. *Cancer Biology and Therapy*, **2014**, 15, 758-67	4.6	41
16	Enhanced vascular PI3K/Akt-NOX signaling underlies the peripheral NMDAR-mediated pressor response in conscious rats. *Journal of Cardiovascular Pharmacology*, **2014**, 63, 395-405	3.1	9
15	Phosphodiesterase 5 inhibitors enhance chemotherapy killing in gastrointestinal/genitourinary cancer cells. *Molecular Pharmacology*, **2014**, 85, 408-19	4.3	56
14	In vivo study of novel nanocomposite for prostate cancer treatment. *Journal of Physics: Conference Series*, **2015**, 617, 012001	0.3	
13	Sildenafil Protects against Myocardial Ischemia-Reperfusion Injury Following Cardiac Arrest in a Porcine Model: Possible Role of the Renin-Angiotensin System. *International Journal of Molecular Sciences*, **2015**, 16, 27015-31	6.3	14
12	Mechanism of endothelial cyto-protective and thrombo-resistance effects of sildenafil, vardenafil and tadalafil in male rabbit. *Archives of Medical Science*, **2015**, 11, 190-8	2.9	12

11	Myocardial protection from ischemia-reperfusion injury post coronary revascularization. *Expert Review of Cardiovascular Therapy*, **2015**, 13, 1045-57	2.5	69
10	Tadalafil, a Phosphodiesterase Inhibitor Protects Stem Cells over Longer Period Against Hypoxia/Reoxygenation Injury Through STAT3/PKG-I Signaling. *Stem Cells and Development*, **2015**, 24, 1332-41	4.4	9
9	The cardioprotective effect of sildenafil is mediated by the activation of malate dehydrogenase and an increase in the malate-aspartate shuttle in cardiomyocytes. *Biochemical Pharmacology*, **2017** , 127, 60-70	6	8
8	Renoprotective Effect of the Histone Deacetylase Inhibitor CG200745 in DOCA-Salt Hypertensive Rats. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	8
7	Cardioprotection via the skin: nociceptor-induced conditioning against cardiac MI in the NIC of time. *American Journal of Physiology - Heart and Circulatory Physiology*, **2019**, 316, H543-H553	5.2	10
6	Phosphodiesterase Inhibitors: Could They Be Beneficial for the Treatment of COVID-19?. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	22
5	Sildenafil citrate in healthy and diseased hearts. *Journal of Cardiology and Cardiovascular Medicine*, **2021**, 6, 033-039	0.1	0
4	Cardiac Effects of Phosphodiesterase-5 Inhibitors: Efficacy and Safety. *Cardiovascular Drugs and Therapy*, **2021**, 1	3.9	1
3	A Novel Sulindac Derivative Protects against Oxidative Damage by a Cyclooxygenase-Independent Mechanism. *Journal of Pharmacology and Experimental Therapeutics*, **2022**, 382, 79-87	4.7	
2	Beyond Erectile Dysfunction: cGMP-Specific Phosphodiesterase 5 Inhibitors for Other Clinical Disorders. **2023**, 63,		1
1	Nitric Oxide-cGMP-PKG Signaling in the Cardioprotective Effects of Phosphodiesterase 5 Inhibitors. **2023**, 111-126		0