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Effects of losartan and irbesartan administration on brain angiotensinogen mRNA levels.

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Losartan, 2-n-butyl-4-chloro-5-hydroxymethyl-1-[(2'(1H-tetrazol-5-yl)-biphenil-4-yl)methyl] imidazole, and Irbesartan, 2-n-butyl-3-[(2'-(1H-tetrazol-5-yl)-biphenyl-4-yl)methyl]-1,3-diaza-

-1-en-4-one, are two angiotensin AT1 receptor antagonists largely used in human health care as antihypertensive agents. Their ability to cross the blood-brain barrier and to influence the central renin-angiotensin system are widely investigated, but how this brain system responds to the subchronic and chronic block of the angiotensin AT1 receptor is still unknown. Normotensive rats were intragastrically implanted for 7- and 30-day administration, with a dose of 3 and

30 mg/kg body weight. Treatments were shown to influence, in a dose-, time- and brain-area-dependent manner, angiotensinogen mRNA levels in scanned areas. This study showed a general up-regulation of angiotensinogen mRNA expression after 7 days and a widespread down-regulation or basal level of expression after a 30-day

administration of two angiotensin AT1 receptor antagonists.

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