Candesartan is an inhibitor of the angiotensin II type 1 receptor (AT1) that displays antihypertensive, cardioprotective, nephroprotective, and potentially antiviral activities. In vivo, candesartan increases renal blood flow and decreases renal vascular resistance, glomerular filtration rate, and filtration fraction. Candesartan also decreases NADPH oxidase activity and levels of TGF-β, inhibiting calcium oxalate crystal deposition and kidney stone formation. In animal models of pressure overload-induced cardiac remodeling, candesartan downregulates Smad3 and fibronectin, upregulates Smad7, and inhibits matrix metalloproteinase 9 (MMP-9) and the epithelial-to-mesenchymal transition (EMT), preventing collagen deposition, left ventricular remodeling, and decreases in left ventricular ejection fraction. Additionally, this compound downregulates expression of VEGFR2, decreasing retinal neovascularization without inhibiting total angiogenesis. Separately, candesartan may inhibit the interaction between lens epithelium-derived growth factor (LEDGF) and HIV-1 integrase, exhibiting potential as a treatment for HIV.

References


Caution: This product is intended for laboratory and research use only. It is not for human or drug use.