

**Table S1: Molecular Properties of Key Molecules of the RAAS**

	Renin	Angiotensinogen	Ang I	Ang II	Ang III	Ang IV	Ang 1-7	Ang 1-9	Aldosterone
Receptor	(Pro)renin receptor, also known as ATP6AP2	None	This peptide does not have any known biological activity [170].	Ang II AT1R and AT2R Ang II> Ang III> Ang IV [170]	Ang II AT1R and AT2R	AT4 receptor [171, 172]	Mas receptor	AT2R	mineralocorticoid receptor (MR)
Cell*	Renin cleaves angiotensinogen to form Ang I; smooth muscle cells, alveolar cells type 2, connective tissue cells #	cleaved by renin to form Ang I; secreted to blood #	Cleaved by ACE to form Ang II. Vascular smooth muscle cells; Endothelial cells	Vascular smooth muscle cells; Endothelial cells	Vascular smooth muscle cells; CNS, Endothelial cells	porcine pulmonary endothelial cells, rabbit cardiac fibroblast [171]	brain, testes, eyes, and livers	Rat cardiac fibroblasts [173]	variety of tissues, including kidney and colon epithelial cells, and cardiovascular and CNS nonepithelial cells
Tissues (human)	Kidney, brain (choroid plexus), lung # [174]	Liver, brain, kidney # [174]	Kidney, lung, heart, liver, and brain	Vasoconstriction; adrenal glands to release aldosterone; pituitary gland to release antidiuretic hormone (ADH, or vasopressin).	Kidney, heart, brain	the adrenal gland, kidney, lung, and heart, as brain [171]	brain, testes, eyes, and livers [175]	Heart, lung, kidney, brain, and liver	Heart, kidney, brain, and vascular wall [176]
Systemic Effects	regulator of blood pressure, systemic vascular resistance	kidney developmental abnormalities, atherosclerosis, and obesity [177]	No known systemic activity [170].	Cardiovascular system, kidneys, blood vessels, adrenal glands, and brain. Adrenal Pituitary gland CNS	Vasoconstriction, increase blood pressure, anti-natriuresis, hypertrophy, cell proliferation, aldosterone secretion and vasopressin release [178]	Attenuates (a) diabetic cardiomyopathy [179] and (b) doxorubicin-induced cardiotoxicity [180]	Cardiovascular system, kidneys, blood vessels, adrenal glands, and brain. Adrenal Pituitary gland CNS [181]	antihypertensive and protective against cardiovascular remodeling [182, 183]	Cardiovascular system, kidneys, blood vessels, adrenal glands, and brain. Adrenal Pituitary gland CNS [184]

\***Cell:** This term is defined as either (i) selected cell-based experimental systems reported in the literature to investigate the biology of the molecules of interests or (ii) cells known to be positive for expression of the molecules of interests.

#**Data source:** The Human Protein Atlas ([www.proteinatlas.org](http://www.proteinatlas.org)).