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Recombinant Human Angiotensin Converting Enzyme 2 APN01

National Cancer Institute

Source

National Cancer Institute. *Recombinant Human Angiotensin Converting Enzyme 2 APN01*. NCI Thesaurus. Code C85447.

A recombinant, soluble glycosylated form of human angiotensin converting enzyme 2 (rhACE2) with antihypertensive and potential antineoplastic activities. Recombinant human angiotensin converting enzyme 2 APN01 may normalize ACE2 levels, cleaving angiotensin II to create angiotensin-(1-7) and restoring the function of the renin-angiotensin system (RAS). ACE2, a homolog of ACE1, appears to function as a negative regulator of the RAS system by converting angiotensin II to angiotensin-(1-7), a peptide with actions that counteract the cardiovascular actions of angiotensin II. In addition, angiotensin-(1-7) may inhibit cyclooxygenase 2 (COX-2) and the production of proinflammatory prostaglandins and may activate the angiotensin-(1-7) G protein-coupled receptor Mas, resulting in diminished tumor cell proliferation. ACE2 levels may be reduced in malignancy and diabetes and in liver, cardiovascular and lung diseases.