

Title (en)
ANGIOTENSIN IV PEPTIDES AND RECEPTOR.

Title (de)
ANGIOTENSIN IV PEPTIDE UND REZEPTOR.

Title (fr)
PEPTIDES DE L'ANGIOTENSINE IV, ET RECEPTEUR.

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Application
EP 93916733 A 19930624

Priority
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Abstract (en)
[origin: WO9400492A1] A unique and novel angiotensin AT4 receptor and AIV ligand system for binding a small N-terminal hexapeptide fragment of Angiotensin II (referred to as AIV, with amino acid sequence Val1-Tyr2-Ile3-His4-Pro5-Phe6) is disclosed. AIV ligand binds saturably, reversibly, specifically, and with high affinity to membrane AT4 receptors in a variety of tissues, including heart, lung, kidney, aorta, brain, liver, and uterus, from many animal species. The AT4 receptor is pharmacologically distinct from classic angiotensin receptors (AT1 or AT2). The system employs AIV or C-terminally truncated or extended AIV-like peptides (e.g. VYIHPFX) as the signaling agent, and the AT4 plasma membrane receptor as the detection mechanism. The angiotensin AT4 receptor and receptor fragments (including the receptor binding site domain) are capable of binding a VYIHPF angiotensin AIV N-terminal peptide but not an angiotensin AII or AIII N-terminal peptide, i.e., DRVYIHPF or RVYIHPF, respectively. Also disclosed are processes for isolating angiotensin AT4 receptor and AIV angiotensinase, identifying angiotensin AIV agonists and antagonists, and constructing diagnostic assays to specifically measure AIV and AI-specific angiotensinase in biological fluids.

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