A novel inhibitor of angiotensin – converting enzyme (ACE) identical to a sequence part of human muscle glyceraldehyde-3-phosphate dehydrogenase (GAPDH) was chemically synthesized. Amino acid sequence was as follows Pro – Glu – Asn – Ile – Lys – Trp – Gly – Asp. This peptide inhibited rabbit lung ACE with a $K_i$ value of 1.6 $\mu$m. The inhibitor of ACE acts in a non-competitive manner. The amino acid sequence of the new inhibitor was compared of GAPDH from other sources.