Human ACE, Tag Free Protein

HA211209

Product name:	Human ACE, Tag Free
Species reactivity:	Human
Bio-Activity:	Testing in progress.
Protein construction description:	A DNA sequence encoding the human ACE protein (P12821-1) (Leu 30-Arg 1256) was expressed with tag free.

Background: Angiotensin-converting enzyme (EC 3.4.15.1), or ACE, is a central component of the renin–angiotensin system (RAS), which controls blood pressure by regulating the volume of fluids in the body. It converts the hormone angiotensin I to the active vasoconstrictor angiotensin II. Therefore, ACE indirectly increases blood pressure by causing blood vessels to constrict. ACE inhibitors are widely used as pharmaceutical drugs for treatment of cardiovascular diseases. Other lesser known functions of ACE are degradation of bradykinin, substance P and amyloid beta-protein. ACE hydrolyzes peptides by the removal of a dipeptide from the C-terminus. Likewise it converts the inactive decapeptide angiotensin I to the octapeptide angiotensin II by removing the dipeptide His-Leu. Angiotensin II is a potent vasoconstrictor in a substrate concentration-dependent manner. Angiotensin II binds to the type 1 angiotensin II receptor (AT1), which sets off a number of actions that result in vasoconstriction and therefore increased blood pressure. ACE is also part of the kinin-kallikrein system where it degrades bradykinin, a potent vasodilator, and other vasoactive peptides. Kininase II is the same as angiotensin-converting enzyme. Thus, the same enzyme (ACE) that generates a vasoconstrictor (ANG II) also disposes of vasodilators (bradykinin).

Purity:	>95% as determined by SDS-PAGE.
Endotoxin:	Less than 1.0 EU per μg by the LAL method.
Fragment region:	ACE (30-1256)
Source:	HEK293
Accession:	P12821-1
Predicted molecular mass:	142 kD
Formulation:	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.
Reconstitution:	Reconstitute at 250 μg/ml in sterile water.
Storage:	Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -20℃ to -80℃ It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.

Images

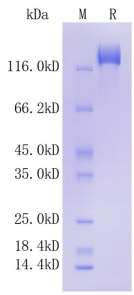

Fig1: Protein on SDS-PAGE under reducing (R) condition.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".