

Active Recombinant Human ACE Protein, His-tagged

Cat. No. ACE-011H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human ACE Protein (30-1256aa) with His tag was expressed in insect cells.
Species	Human
Source	Insect Cells
ProteinLength	30-1256aa
Description	This gene encodes an enzyme involved in in blood pressure regulation and electrolyte balance. It catalyzes the conversion of angiotensin I into a physiologically active peptide angiotensin II. Angiotensin II is a potent vasopressor and aldosterone-stimulating peptide that controls blood pressure and fluid-electrolyte balance. ACE also inactivates the vasodilator protein, bradykinin. Accordingly, the encoded enzyme increases blood pressure and is a drug target of ACE inhibitors, which are often prescribed to reduce blood pressure. This enzyme additionally plays a role in fertility through its ability to cleave and release GPI-anchored proteins in testes. Many studies have associated the presence or absence of a 287 bp Alu repeat element in this gene with the levels of circulating enzyme. This polymorphism, as well as mutations in this gene, have been implicated in a wide variety of diseases including cardiovascular pathophysiologies, psoriasis, renal disease, stroke, and Alzheimer's disease. Alternative splicing results in multiple transcript variants.
Form	Liquid

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Bio-activity	Specific activity is > 1000 pmol/min/mg, and is defined as the amount of enzyme that cleaves 1pmol of Mca-RPPGFSAFK(Dnp)-OH per minute at 25 centigrade.
Molecular Mass	142kDa(1235aa)
AA Sequence	LDPGLQPGNFSADEAGAQLFAQSYNSSAEQVLFQSVAAASWAHDTNITAENARRQE EAALLSQEFAEAWGQKAKELYEPIWQNFTDPQLRRIIGAVRTLGSANLPLAKRQQYN ALLSNMSRIYSTAKVCLPNKTATCWSLDPDLTNILASSRSYAMLLFAWEGWHNAAGI PLKPLYEDFTALSNEAYKQDGFDTGAYWRSWYNSPTFEDDLEHLYQQLEPLYLNL HAFVRRALHRRYGDRYINLRGPIPAHLLGDMWAQSWENIYDMVVPFPDKPNLDVTS TMLQQGWNATHMFRVAEEFFTSLELSPMPPEFWEGSMLEKPADGREVVCHASAW DFYNRKDFRIKQCTRVTMDQLSTVHHEMGHIQYYLQYKDLPVSLRRGANPGFHEAI GDVLALS SVSTPEHLHKIGLLDRVTNDTESDINYLKMALEKIAFLPFGYLVDQWRWGV FSGRTPPSRYNFDWWYLRTKYQGICPPVTRNETHFDAGAKFHVPNVTPYIRYFVSF VLQFQFHEALCKEAGYEGPLHQCDIYRSTKAGAKLRKVLQAGSSRPWQEV LKDMV GLDALDAQPLLKYFQPVTQWLQEQNQNGEVLGWPEYQWHPPLPDNYPEGIDLVT DEAEASKFVEEYDRTSQVWNEYAEANWNYNTNITTETSKILLQKNMQIANHTLKYG TQARKFDVNQLQNTTIKRIKKVQDLERAALPAQELEEYNKILLDMETTYSVATVCHP NGSCLQLEPDLTNVMATSRKYEDLLWAWEGWRDKAGRAILQFYPKYVELINQAARL NGYVDAGDSWRSMYETPSLEQDLERLFQELQPLYLNLHAYVRRALHRHYGAQHINL EGPIPAHLLGNMWAQTWSNIYDLVVPFPSAPSMDTTEAMLKQGWTPRRMFKEADD FFTS LGLLPVPPEFWNKSMLEKPTDGREVVCHASAWDFYNGKDFRIKQCTTVNLED LVVAHHEMGHIQYFMQYKDLPVALREGANPGFHEAIGDVLALS SVTPKHLHSLNLLS SEGGSDEHDINFLMKMALDKIAFIPFSYLVDQWRWRVFDGSITKENYNQEWWSLRL KYQGLCPPVPRTQGD FPGAKFHIPSSVPYIRYFVSFIIQFQFHEALCQAAGHTGPLH KCDIYQSKEAGQRLATAMKLGFSRPWPEAMQLITGQP NMSASAMLSYFKPLLDWLR TENELHGEKLGWPQYNWTPNSARSEGPLPDSGRVSFLGLDLDAQQAR
Endotoxin	< 1 EU per 1 g of protein (determined by LAL method)

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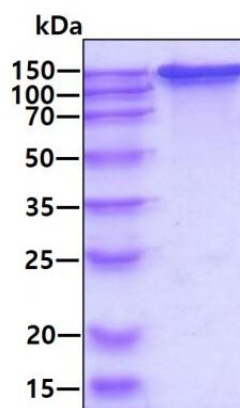
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Purity	> 90% by SDS-PAGE
Applications	SDS-PAGE, Enzyme Activity
Storage	Can be stored at +2 to +8 centigrade for 1 week. For long term storage, aliquot and store at -20 to -80 centigrade. Avoid repeated freezing and thawing cycles.
Concentration	0.25 mg/mL (determined by Absorbance at 280nm)
Storage Buffer	In Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol
GENE INFORMATION	
Gene Name	ACE angiotensin I converting enzyme [Homo sapiens (human)]
Official Symbol	ACE
Synonyms	ACE; angiotensin I converting enzyme; DCP; ACE1; DCP1; CD143; angiotensin-converting enzyme; CD143 antigen; angiotensin I converting enzyme (peptidyl-dipeptidase A) 1; angiotensin converting enzyme, somatic isoform; carboxycathepsin; dipeptidyl carboxypeptidase 1; dipeptidyl carboxypeptidase I; kininase II; peptidase P; EC 3.4.15.1
Gene ID	1636
mRNA Refseq	NM_000789
Protein Refseq	NP_000780
MIM	106180

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UniProt ID**P12821****SDS-PAGE**

3 g by SDS-PAGE under reducing condition and visualized by coomassie blue stain

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