

Recombinant Human ACE

Cat. No. ACE-8304H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	A DNA sequence encoding Human ACE was expressed.
Species	Human
Description	This gene encodes an enzyme involved in catalyzing 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. This enzyme plays a key role in the renin-angiotensin system. Many studies have associated the presence or absence of a 287 bp Alu repeat element in this gene with the levels of circulating enzyme or cardiovascular pathophysiologies. Multiple alternatively spliced transcript variants encoding different isoforms have been identified, and two most abundant spliced variants encode the somatic form and the testicular form, respectively, that are equally active.
Form	This recombinant protein was 0.2 µm filtered and is supplied in a solution of sodium chloride (NaCl), zinc chloride (ZnCl ₂), tris and glycerol.
Molecular Mass	The predicted molecular weight of Recombinant Human CD143 is Mr 143 kDa. However, the actual molecular weight as observed by migration on SDS-PAGE is Mr 160-180 kDa.
AA Sequence	I dpglqp gnfs adeagaqlfa qsynssaeqv lfqsvaaswa hdnitaena rrqeeaalls qefaeawgqk akelyepiwq nftdpqlrri igavrtlgsa nlplakrqyq nallsnmsri ystakvclpn ktatcwsldp dltnilassr syamllfawe gwhnaagi pl kplyedftal sneaykqdgf tdtgaywrs w ynsptfeddl ehlyqqlepl

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ylnlhafvrr alhrrygdry inlrgpipah llgdmwaqsw eniydmvvpf pdkpnldvts tmlqqgwnat
 hmfrvaeeff tslelspmpf efwegsmlek padgrevvch asawdfynrk dfrikqctrv tmdqlstvh
 emghiqyylq ykdlpvsrr ganpgfheai gdlalsvst pehlhkigll drvntdesd inyllkmaie kiaflpfgy
 vdqwrwgvs grtppsrynf dwwylrtkyq gicppvrne thfdagakfh vpvntpyiry fvsfvlqf
 healckeagy egplhqcdiy rstkagaklr kvlagssrp wqevlkdmvg ldaldaqpil kyfqpvtqwl
 qeqnqqngev lgwpeyqwhp plpdnypegi dlvtdeaeas kfveeydrts qvwwneyaea nwnyntnnt
 etskillqkn mqianhtlky gtqarkfdvn qlqnttikri ikkvqdlara alpaqeleeey nkilldmatt ysvatvchpn
 gscqllepdln tnmatsrky edllwawegw rdkagrailq fypkyvelin qaarlngyvd agdswrsmye
 tpsleqdlr lfqelqplyl nlhayvrral hrhygaqhln legpipahll gnmwaqtswn iydllvvpf
 apsmtdteam lkqgwtprrm fkeaddffts lgllvppef wnksmlekpt dgrevvchas awdfyngkdf
 rikqctvnl edlvvahhem ghiqymqyk dlpvalrega npgfheaigd vlalsvstpk hlslnlss
 eggdsdehdin flmkmalcki afipfsylvd qwrwrvfdgs itkenynqew wslrlkyqgl cppvprtqgd
 fdpgakfhip ssvpyiryfv sfiiqfhe alcqaaghtg plhkcdiyqs keagqlata mklgfsrwpw
 eamqlitgqp nmsasamlsy fkpdlwrt enelhgcklg wpqynwtpns arsegplpds grvsflgldl
 daqqarvgqw lhhhhhhhhh h

Endotoxin <1.0 eu/μg="" as="" determined="" by="" the="" lal="">

Purity >95% by SDS-PAGE and analyzed by silver stain.

Storage Working aliquots of this recombinant protein solution are stable for up to six months at -20°C to -70°C in a manual defrost freezer. Upon thawing, in the presence of a carrier protein, this recombinant protein can be stored at -20° to -70°C for three months without detectable loss of activity. For long-term storage, aliquot and freeze at -20°C to -70°C in a manual defrost freezer. Avoid repeated freeze thaw cycles.

GENE INFORMATION

Gene Name ACE angiotensin I converting enzyme (peptidyl-dipeptidase A) 1 [Homo sapiens]

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Official Symbol	ACE
Synonyms	ACE; angiotensin I converting enzyme (peptidyl-dipeptidase A) 1; DCP1; angiotensin-converting enzyme; ACE1; CD143; kininase II; peptidase P; CD143 antigen; testicular ECA; carboxycathepsin; dipeptidyl carboxypeptidase 1; dipeptidyl carboxypeptidase I; angiotensin converting enzyme, somatic isoform; DCP; ICH; MVCD3;
Gene ID	1636
mRNA Refseq	NM_000789
Protein Refseq	NP_000780
UniProt ID	P12821
Chromosome Location	17q23.3
Pathway	ACE Inhibitor Pathway, organism-specific biosystem; Chagas disease (American trypanosomiasis), organism-specific biosystem; Chagas disease (American trypanosomiasis), conserved biosystem; Hypertrophic cardiomyopathy (HCM), organism-specific biosystem; Hypertrophic cardiomyopathy (HCM), conserved biosystem; Renin-angiotensin system, organism-specific biosystem; Renin-angiotensin system, conserved biosystem;
Function	actin binding; bradykinin receptor binding; carboxypeptidase activity; chloride ion binding; drug binding; endopeptidase activity; metal ion binding; metallopeptidase activity; metallopeptidase activity; peptidase activity; peptide binding; peptidyl-dipeptidase activity; peptidyl-dipeptidase activity; protein binding; zinc ion binding;