

Product datasheet for **RC230435**

Angiotensin Converting Enzyme 1 (ACE) (NM_001178057) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Angiotensin Converting Enzyme 1 (ACE) (NM_001178057) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Angiotensin Converting Enzyme 1
Synonyms:	ACE1; CD143; DCP; DCP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC230435 representing NM_001178057
 Red=Cloning site Blue=ORF Green=Tags(s)

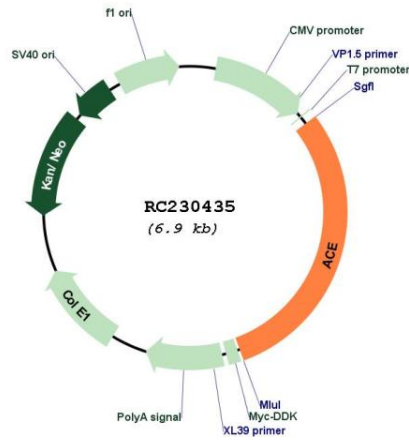
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 GCC**CGGATCGCC**

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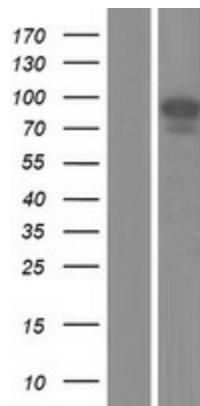
ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
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Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_001178057.2
RefSeq ORF:	2076 bp
Locus ID:	1636
UniProt ID:	P12821
Cytogenetics:	17q23.3
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Protease, Secreted Protein, Transmembrane
Protein Pathways:	Hypertrophic cardiomyopathy (HCM), Renin-angiotensin system
MW:	79.1 kDa
Gene Summary:	<p>This gene encodes an enzyme involved 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. This angiotensin converting enzyme (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 membrane proteins in spermatozoa. 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. Regulation of the homologous ACE2 gene may be involved in progression of disease caused by several human coronaviruses, including SARS-CoV and SARS-CoV-2. Alternative splicing results in multiple transcript variants encoding both somatic (sACE) and male-specific testicular (tACE) isoforms. [provided by RefSeq, Sep 2020]</p>

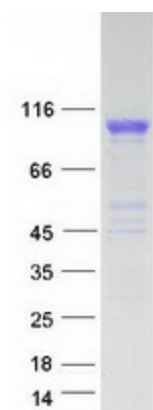
Product images:



Circular map for RC230435



Western blot validation of overexpression lysate (Cat# [LY433435]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC230435 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ACE protein (Cat# [TP330435]). The protein was produced from HEK293T cells transfected with ACE cDNA clone (Cat# RC230435) using MegaTran 2.0 (Cat# [TT210002]).