

Product datasheet for RC230435L3V

OriGene Technologies, Inc.

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

Product data:

Product Type: Lentiviral Particles

Product Name: Angiotensin Converting Enzyme 1 (ACE) (NM_001178057) Human Tagged ORF Clone Lentiviral

Particle

Symbol: Angiotensin Converting Enzyme 1

Synonyms: ACE1; CD143; DCP; DCP1

Mammalian Cell

Selection:

Puromycin

Vector: pLenti-C-Myc-DDK-P2A-Puro (PS100092)

Tag: Myc-DDK

ACCN: NM 001178057

ORF Size: 2073 bp

ORF Nucleotide

The ORF insert of this clone is exactly the same as(RC230435).

OTI Disclaimer:

Sequence:

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing

variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression

varies depending on the nature of the gene.

RefSeq: <u>NM 001178057.1</u>

 RefSeq ORF:
 2076 bp

 Locus ID:
 1636

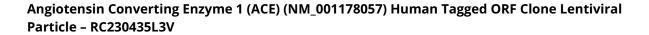
 UniProt ID:
 P12821

 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:

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]