

Product datasheet for **RC208382**

Renin (REN) (NM_000537) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Renin (REN) (NM_000537) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Renin
Synonyms:	ADTKD4; HNFJ2; RTD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC208382 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGGATGGATGGAGAAGGATGCCTCGCTGGGACTGCTGCTGCTGCTCTGGGGCTCCTGTACCTTTGGTC
TCCCGACAGACACCACCTTTAAACGGATCTTCCTCAAGAGAATGCCCTCAATCCGAGAAAGCCTGAA
GGAACGAGGTGTGGACATGGCCAGGCTTGGTCCCGAGTGGAGCCAACCCATGAAGAGGCTGACACTTGGC
AACACCACCTCCTCCGTGATCCTCACCACCTACATGGACACCCAGTACTATGGCGAGATTGGCATCGGCA
CCCCACCCAGACCTTCAAAGTCGTCTTTGACACTGGTTCGTCCAATGTTTGGGTGCCCTCCTCCAAGTG
CAGCCGTCTTACACTGCCTGTGTGATACAAGCTCTTCGATGCTTCGGATTCCCTCCAGCTACAAGCAC
AATGGAACAGAACTCACCTCCGCTATTCAACAGGGACAGTCAGTGGCTTCTCAGCCAGGACATCATCA
CCGTGGGTGGAATCACGGTGACACAGATGTTTGGAGAGGTACGGAGATGCCCGCCTTACCTTTCATGCT
GGCCGAGTTTGTGGGTTGTGGCATGGGCTTATTGAACAGGCCATTGGCAGGGTACCCCTATCTTC
GACAACATCATCTCCAAGGGGTGCTAAAAGAGGACGCTTCTCTTTCTACTACAACAGAGATCCGAGA
ATTCCAATCGCTGGGAGGACAGATTGTGCTGGGAGGCAGCGACCCAGCATTACGAAGGAATTTCCA
CTATATCAACCTCATCAAGACTGGTGTCTGGCAGATTCAAATGAAGGGGTGTCTGTGGGTCATCCACC
TTGCTCTGTGAAGACGGCTGCCTGGCATTGGTAGACACCGTGCATCCTACATCTCAGTTCTACCAGCT
CCATAGAGAAGCTCATGGAGGCCTTGGGAGCCAAGAAGAGGCTGTTTGATTATGTCGTGAAGTGTAAACGA
GGGCCCTACACTCCCGACATCTCTTTCCACCTGGGAGGCAAAGAATACACGCTCACCAGCGCGGACTAT
GTATTTAGGAATCCTACAGTAGTAAAAGCTGTGCACACTGGCCATCCACGCCATGGATATCCCGCCAC
CCACTGGACCCACCTGGGCCCTGGGGGCCACCTTCATCCGAAAGTTCTACACAGAGTTTGTATCGGCGTAA
CAACCGCATTGGCTTCGCCTTGGCCCGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Reconstitution Method:

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_000537.4](#)

RefSeq Size: 1493 bp

RefSeq ORF: 1221 bp

Locus ID: 5972

UniProt ID: [P00797](#)

Cytogenetics: 1q32.1

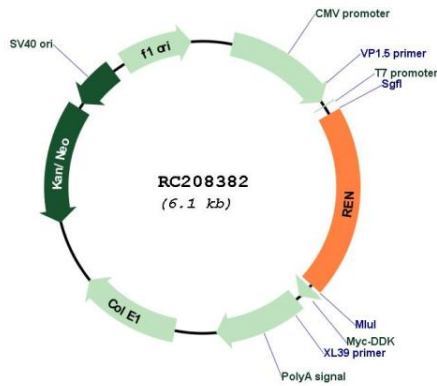
Protein Families: Druggable Genome, Secreted Protein

Protein Pathways: Renin-angiotensin system

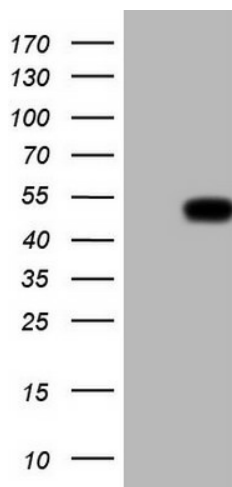
MW: 45.1 kDa

Gene Summary: This gene encodes renin, an aspartic protease that is secreted by the kidneys. Renin is a part of the renin-angiotensin-aldosterone system involved in regulation of blood pressure, and electrolyte balance. This enzyme catalyzes the first step in the activation pathway of angiotensinogen by cleaving angiotensinogen to form angiotensin I, which is then converted to angiotensin II by angiotensin I converting enzyme. This cascade can result in aldosterone release, narrowing of blood vessels, and increase in blood pressure as angiotension II is a vasoconstrictive peptide. Transcript variants that encode different protein isoforms and that arise from alternative splicing and the use of alternative promoters have been described, but their full-length nature has not been determined. Mutations in this gene have been shown to cause hyperuricemic nephropathy familial juvenile 2, familial hyperproreninemia, and renal tubular dysgenesis. [provided by RefSeq, May 2020]

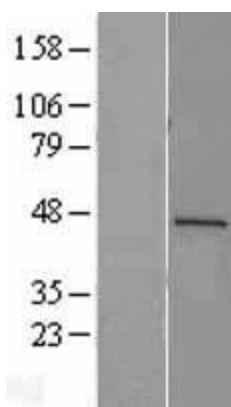
Product images:



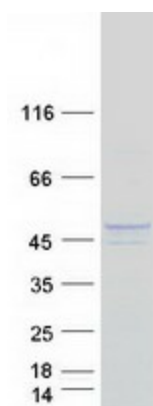
Circular map for RC208382



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY REN (Cat# RC208382, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-REN (Cat# [TA807365]). Positive lysates [LY424660] (100ug) and [LC424660] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY424660]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208382 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified REN protein (Cat# [TP308382]). The protein was produced from HEK293T cells transfected with REN cDNA clone (Cat# RC208382) using MegaTran 2.0 (Cat# [TT210002]).