

Recombinant human Renin protein

Catalog Number: ATGP2177

PRODUCT INFORMATION

Expression system

E.coli

Domain

67-406aa

UniProt No.

P00797

NCBI Accession No.

NP_000528

Alternative Names

Renin, HNFJ2

PRODUCT SPECIFICATION

Molecular Weight

39.9 kDa (365aa)

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.4M urea, 10% glycerol

Purity

> 80% by SDS-PAGE

Tag

His-Tag

Application

SDS-PAGE, Denatured

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

Renin catalyzes the first step in the activation pathway of angiotensinogen--a cascade that can result in aldosterone release, vasoconstriction, and increase in blood pressure. Renin, an aspartyl protease, cleaves angiotensinogen to form angiotensin I, which is converted to angiotensin II by angiotensin I converting enzyme, an important regulator of blood pressure and electrolyte balance. 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

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cause familial hyperproreninemia. Recombinant human REN protein, fused to His-tag at N-terminus, was expressed in *E. coli*.

Amino acid Sequence

<MGSSHHHHHH SSGLVPRGSH MGSHM>LTLGN TTSSVILTNY MDTQYYGEIG IGTPPQTFKV VFDTGSSNVW
VPSSKCSRLY TACVYHKLFD ASDSSSYKHN GTELTLRYST GTVSGFLSQD IITVGGITVT QMFGEVTEMP ALPFMLAEFD
GVVGMGFIEQ AIGRVTPIFD NIISQGV LKE DVFSFY YNRD SENSQSLGGQ IVLGGSDPQH YEGNFHYINL IKTGVWQIQM
KGVSVGSSTL LCEDGCLALV DTGASYISGS TSSIEKLMEA LGAKKRLFDY VVKCNEGPTL PDISFHLGGK EYTLTSADYV
FQESYSSKKL CTLAIHAMD I PPPTGPTWAL GATFIRK FYT EFD RRNNRIG FALAR

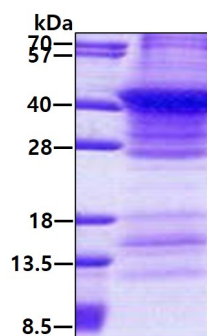
General References

Gribouval O., et al. (2005) *Nat. Genet.* 37:964-968

Zivna M., et al. (2009) *Am. J. Hum. Genet.* 85:204-213

DATA

SDS-PAGE



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