

Human CellExp™ Renin, Human Recombinant

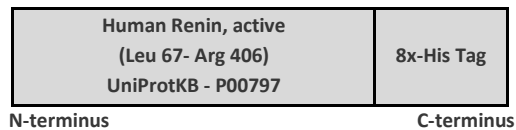
CATALOG #: 6300-10 10 µg
6300-50 50 µg
6300-100 100 µg

ALTERNATE NAMES: Angiotensinogenase, REN

SOURCE: HEK 293 cells (Leu 67 – Arg 406)

PURITY: > 95% by SDS - PAGE

MOL. WEIGHT: 43 kDa (C terminal 8xHis tag)



FORMULATION: Lyophilized from 0.22 µm filtered 50 mM Tris-HCl and 50 mM NaCl, pH 8.0 with 5% trehalose

RECONSTITUTION: Centrifuge the vial prior to opening. Reconstitute in sterile PBS (pH 7.4). Do not vortex.

STORAGE CONDITIONS: Aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

DESCRIPTION:

Renin is a highly specific endopeptidase with the known function of generating angiotensin I from angiotensinogen in the plasma. This enzymatic reaction with the particular substrate angiotensinogen initiates a cascade of reactions that produce an elevation of blood pressure and increased sodium retention by the kidney. Prorenin is a glycosylated aspartic protease that consists of 2 homologous lobes and is the precursor of renin. Prorenin exhibits much lower level of enzymatic activity relative to activated renin. BioVision's active human renin is produced from the pro-form prorenin by removing the 43 amino acid N-terminal pro-segment with trypsin.

SPECIFIC ACTIVITY:

The specific activity is > 2 U/mg. The specific activity of active Renin was assayed using BioVision's Renin Activity Fluorometric Assay Kit (Catalog # K800).

UNIT DEFINITION: One unit of active human Renin is defined as the amount of enzyme that generates 1.0 nmol of substrate per min under the assay conditions at 37 °C.

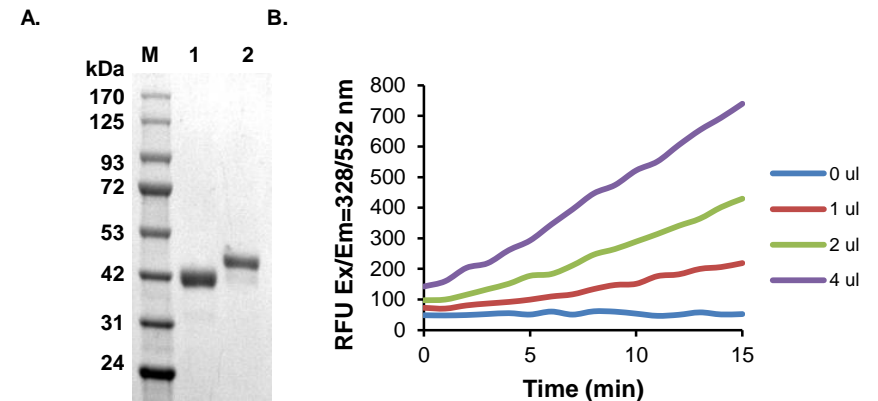


Fig. A. SDS-PAGE (4-20%) of active and pro Renin: 2 µg of the recombinant Renin and prorenin is loaded under reducing conditions and stained with Coomassie Blue. Lane M: MW Marker, Lane 1: Active Renin, Lane 2: Prorenin.

Fig. B. Renin Enzyme activity: The specific activity of activated Renin is > 2 U/mg assayed by using BioVision's Renin Activity Fluorometric Assay Kit (BV Catalog# K800). Renin concentration was 0.1mg/ml

RELATED PRODUCTS:

- Renin Inhibitor Screening Kit (Fluorometric) (Cat # K799)
- Renin Activity Fluorometric Assay Kit (Cat # K800)
- Rat Renin Inhibitor Screening Kit (Fluorometric) (Cat# K798)
- Rat Renin Activity Fluorometric Assay Kit (Cat# K806)
- Rat renin inhibitor peptide (Cat # 2557)
- Renin Inhibitor (Cat # 2084)
- Human CellExp™ Renin, mouse recombinant (Cat # 7241)

FOR RESEARCH USE ONLY! Not to be used in humans.