

Human CellExp Renin, mouse recombinant protein
CYMP, CYM, RENNIN, Chymosin
Catalog # PBV10871r**Specification**

Human CellExp Renin, mouse recombinant protein - Product infoPrimary Accession
Calculated MW[P06281](#)

The protein is fused with 6×his tag at the C-terminus and has a calculated MW of 43.2 kDa expressed. The predicted N-terminus is Leu24. Protein migrates as 45-55 kDa in reduced SDS-PAGE due to glycosylation. KDa

Human CellExp Renin, mouse recombinant protein - Additional InfoGene ID
Gene Symbol
Other Names
CYMP, CYM, RENNIN, Chymosin**19701**
RENGene Source
Source
Assay&Purity
Assay2&Purity2
Recombinant
Target/Specificity
Renin**Mouse**
HEK 293 cells
SDS-PAGE; ≥95%
HPLC;
Yes**Application Notes**

Centrifuge the vial prior to opening. Reconstitute in sterile PBS, pH 7.4 to a concentration of 50 µg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 month. For extended storage, it is recommended to store at -20°C.

Format

Lyophilized powder

Storage

-20°C; Lyophilized from 0.22 µm filtered solution in PBS. Generally 5-8% Mannitol or trehalose is added as a protectant before lyophilization.

Human CellExp Renin, mouse recombinant protein - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)

- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Human CellExp Renin, mouse recombinant protein - Images

Human CellExp Renin, mouse recombinant protein - Background

Renin, also known as REN and angiotensinogenase, is a circulating enzyme that participates in the body's renin-angiotensin system (RAS), and plays an essential role in the elevation of arterial blood pressure and increased sodium retention by the kidney. Renin activates the renin-angiotensin system by cleaving angiotensinogen, produced by the liver, to yield angiotensin I, which is further converted into angiotensin II by ACE, the angiotensin-converting enzyme primarily within the capillaries of the lungs. Renin is secreted from kidney cells, which are activated via signaling from the macula densa, which responds to the rate of fluid flow through the distal tubule, by decreases in renal perfusion pressure (through stretch receptors in the vascular wall), and by sympathetic nervous stimulation, mainly through beta-1 receptor activation. Renin can bind to ATP6AP2, which results in a fourfold increase in the conversion of angiotensinogen to angiotensin I over that shown by soluble renin. In addition, renin binding results in phosphorylation of serine and tyrosine residues of ATP6AP2. The level of renin mRNA appears to be modulated by the binding of HADHB, HuR and CP1 to a regulatory region in the 3' UTR. An over-active renin-angiotensin system leads to vasoconstriction and retention of sodium and water. These effects lead to hypertension. Therefore, renin inhibitors can be used for the treatment of hypertension.

Human CellExp Renin, mouse recombinant protein - References

Holm I.,et al.EMBO J. 3:557-562(1984).
Kim W.S.,et al.Nucleic Acids Res. 17:9480-9480(1989).
Burt D.W.,et al.Gene 84:91-104(1989).
Carninci P.,et al.Science 309:1559-1563(2005).
Panthier J.-J.,et al.Proc. Natl. Acad. Sci. U.S.A. 81:5489-5493(1984).