



Product Information Sheet

Product Name:	Mouse Prorenin, recombinant
Catalog Number:	72174
Size:	20µg
Concentration:	0.5mg/ml
Activity (Unit/µg):	Provided on the label
Unit definition:	One unit of protease hydrolyzes 1 picomole of mouse renin FRET substrate 5-FAM/QXL™ 520 per minute at pH 7.5 at 25° C.
Storage:	Store at -80°C. Avoid multiple thaw-freeze cycles.

Instruction:

The renin-angiotensin system (RAS) plays a central role in the regulation of blood pressure and electrolyte homeostasis¹. An overactive renin-angiotensin system leads to hypertension. As a result, renin is an attractive target for the treatment of this disease²⁻⁴.

Recombinant mouse prorenin is produced in HEK cells and purified by chelated metal affinity chromatography. It contains an 8x-Histidine tag at the C terminus. The apparent *Mr* of recombinant enzyme on SDS-PAGE is 41.7 kDa. Prorenin, the precursor of renin, is a glycosylated aspartic protease that consists of 2 homologous lobes. Prorenin can be activated with trypsin. Its activity can be measured in a FRET-based enzymatic assay (AnaSpec Cat#72161). 50-100 ng of enzyme is sufficient for FRET-based assay.

Enzyme is stored in 50mM Tris, pH 8.0.

References

1. He, FJ. and GA. MacGregor, *J. Renin Angiotensin Aldosterone Syst.* **4**, 11 (2003).
2. Wood, JM. et al. *Hypertension*, **7**, 797 (1985).
3. Shibasaki, M. et al. *Am. J. Hypertens.* **4**, 932 (1991).
4. Wood, JM. et al. *Biochem. Biophys. Res. Comm.* **308**, 698 (2003).