

# PRODUCT INFORMATION



## Prorenin (human, recombinant)

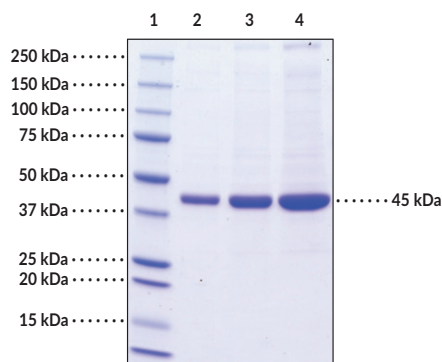
Item No. 10007599

### Overview and Properties

<b>Synonyms:</b>	Angiotensinogenase, Angiotensin forming enzyme
<b>Source:</b>	Recombinant human enzyme expressed in HEK cells
<b>Amino Acids:</b>	1-406 (full length)
<b>Uniprot No.:</b>	P00797
<b>Molecular Weight:</b>	45 kDa
<b>Storage:</b>	-80°C (as supplied); avoid freeze/thaw cycles by aliquoting protein
<b>Stability:</b>	≥1 year
<b>Purity:</b>	≥90% estimated by SDS-PAGE
<b>Supplied in:</b>	50 mM Tris-HCl, pH 8.0, with 150 mM sodium chloride and 5% glycerol
<b>Protein Concentration:</b>	<i>batch specific</i> mg/ml

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Image



Lane 1: MW Markers  
Lane 2: Prorenin (1 µg)  
Lane 3: Prorenin (2 µg)  
Lane 4: Prorenin (4 µg)

SDS-PAGE Analysis of Prorenin.

Representative gel image shown; actual purity may vary between each batch.

### Description

Prorenin is the inactive precursor of renin, which is a key enzyme in the regulation of blood pressure and electrolyte balance. In renal juxtaglomerular cells, sequential cleavage of the N-terminal 20 and 46 amino acids of preprorenin produces prorenin and active renin, respectively.<sup>1</sup> Renin catalyzes the conversion of angiotensinogen to angiotensin I.<sup>2</sup> Prorenin exhibits 5-10% of the proteolytic activity of renin, however, the blood circulating levels are 10 times higher.<sup>3,4</sup>

### References

1. Holzman, T.F., Chung, C.C., Edalji, R., *et al.* *J. Protein Chem.* **9(6)**, 663-672 (1990).
2. Imai, T., Miyazaki, H., Hirose, S., *et al.* *Proc. Natl. Acad. Sci. USA* **80**, 7405-7409 (1983).
3. Sealey, J.E., Atlas, S.A., and Laragh, J.H. *Endocr. Rev.* **1(4)**, 365-391 (1980).
4. Heinrikson, R.L., Hui, J., Zürcher-Neely, H., *et al.* *Am. J. Hypertens.* **2**, 367-380 (1989).

WARNING  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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