

PRODUCT INFORMATION



Renin (human recombinant)

Item No. 10006217

Overview and Properties

Source: Recombinant enzyme expressed in HEK293F cells as prorenin. The prorenin was activated using trypsin and purified using size-exclusion chromatography.

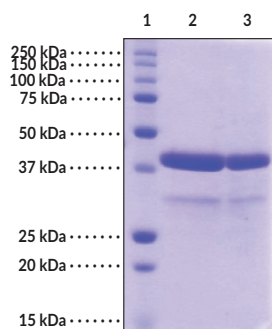
Uniprot No.: P00797

Batch specific information can be found on the Certificate of Analysis or by contacting Technical Support

Molecular Weight: 40 kDa
Storage: -80°C (as supplied)
Stability: ≥1 year
Purity: *batch specific* (≥85% estimated by SDS-PAGE)
Supplied in: 50 mM Tris, pH 8.0, containing 150 mM NaCl and 5% glycerol
Protein Concentration: *batch specific* mg/ml
Activity: *batch specific* U/ml
Specific Activity: *batch specific* U/mg

Unit Definition: One unit is defined as the amount of enzyme that will liberate 1.0 nmol of EDANS per minute at 37°C in 50 mM Tris-HCl, pH 8.0, containing 100 nM NaCl, and 10 μM of the fluorescent peptide Arg-Glu(EDANS)-Ile-His-Pro-Phe-His-Leu-Val-Ile-His-Thr-Lys(dabcyl)-Arg. Renin is diluted with 50 mM Tris-HCl, pH 8.0, containing 100 nM NaCl before assaying in a final assay volume of 205 μl with a fluorescence microplate reader using an excitation wavelength of 340 nm and emission wavelength of 485 nm.

Image



Lane 1: MW Marker
Lane 2: Renin (4 μg)
Lane 3: Renin (2 μg)

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

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.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Renin is an aspartyl protease of approximately 40 kDa produced in the kidney by juxtaglomerular cells of the macula densa.¹ Renin converts angiotensinogen into angiotensin I, activating a major arm of renal sodium and volume auto-regulation. Native human renin is a glycoprotein derived from preprorenin by sequential cleavage of 20 and 46 amino acid residues from the N-terminus of the 406 amino acid precursor. The enzyme provided by Cayman Chemical is the mature, active, 340 amino acid protease

Reference

1. Imai, T., Miyazaki, H., Hirose, S., *et al.* Cloning and sequence analysis of cDNA for human renin precursor. *Proc. Natl. Acad. Sci. USA* **80**, 7405-7409 (1983).

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