

PRODUCT INFORMATION



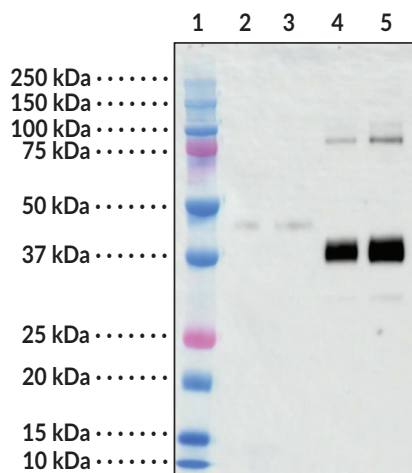
Goat Anti-Renin (human) Polyclonal Antibody

Item No. 17623

Overview and Properties

Contents:	This vial contains 500 µg of protein G-purified polyclonal antibody.
Synonym:	Angiotensinogenase
Immunogen:	Recombinant human renin
Species Reactivity:	(+) Human; other species not tested
Uniprot No.:	P00797
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	TBS, pH 7.4, with 50% glycerol, 0.1% BSA, and 0.02% sodium azide
Host:	Goat
Applications:	ELISA, Immunoprecipitation (IP), and Western blot (WB); the recommended starting dilution for ELISA is 1:10,000 and 1:200 for IP and WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Lane 1: MW Markers
Lane 2: Prorenin (Item No. 10007599) (50 ng)
Lane 3: Prorenin (Item No. 10007599) (200 ng)
Lane 4: Renin (Item No. 10006217) (50 ng)
Lane 5: Renin (Item No. 10006217) (200 ng)

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 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 glycoprotein, a member of the aspartic acid protease family, and a hormone.¹ It is a single-chain polypeptide in which the N- and C-terminal portions contain an aspartate residue responsible for its catalytic activity. It is formed from prorenin, a zymogen found primarily in the juxtaglomerular cells in the kidney, by proteolytic removal of its autoinhibitory domain.^{2,3} Renin catalyzes the conversion of angiotensinogen to angiotensin I, which is the first and rate-limiting step of the renin-angiotensin system (RAS) responsible for regulating blood pressure.³ When blood pressure is low, renin secretion is increased and the RAS is activated, which increases arterial vasoconstriction and sodium resorption to maintain blood pressure at homeostatic levels.⁴ Deletion or substitution of the leucine in position 16 of *REN*, the gene encoding renin, that reduce or eliminate renin biosynthesis are associated with multiple inflammatory diseases, including chronic kidney failure and early-onset hyperuricemia.⁵ Cayman's Goat Anti-Renin (human) Polyclonal Antibody can be used for immunoprecipitation (IP), ELISA, and Western blot applications.

Reference

1. Mukoyama, M. and Nakao, K. Hormones of the Kidney. *Endocrinology*. Melmed S. and Conn P.M., editors, Humana Press (2005).
2. Persson, P.B. Renin: Origin, secretion and synthesis. *J. Physiol.* **552(Pt 3)**, 667-671 (2003).
3. Patel, S., Rauf, A., Khan, H., *et al.* Renin-angiotensin-aldosterone (RAAS): The ubiquitous system for homeostasis and pathologies. *Biomed. Pharmacother.* **94**, 317-325 (2017).
4. Cartledge, S. and Lawson, N. Aldosterone and renin measurements. *Ann. Clin. Biochem.* **37(Pt 3)**, 262-278 (2000).
5. Zivná, M., Hůlková, H., Matignon, M., *et al.* Dominant renin gene mutations associated with early-onset hyperuricemia, anemia, and chronic kidney failure. *Am. J. Hum. Genet.* **85(2)**, 204-213 (2009).

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