

Renin Activity, Plasma


Order Name: **RENIN ACT**
Test Number: 3802425
Revision Date: 10/06/2023

TEST NAME	METHODOLOGY	LOINC CODE
Renin Activity, Plasma	<u>Liquid Chromatography/Tandem Mass Spectrometry</u>	2915-7

SPECIMEN REQUIREMENTS

Specimen	Specimen Volume (min)	Specimen Type	Specimen Container	Transport Environment
Preferred	1 mL (0.8)	Plasma	EDTA (Lavender Top)	Frozen
Instructions	<p>Notes: 0.8 mL (Note: This volume Does NOT allow for repeat testing.)</p> <p>Specimen Type: Plasma, frozen</p> <p>Container Detail: Lavender-top (EDTA) tube</p> <p>Specimen Storage: FREEZE</p> <p>Specimen Collection: Draw blood into an EDTA tube. Keep tube at room temperature. Centrifuge at room temperature. Transfer the plasma into a plain screw cap pour off tube. Freeze immediately and maintain frozen until tested. IT IS CRITICAL THAT THE PLASMA BE TRANSFERRED AND FROZEN AS QUICKLY AS POSSIBLE TO PREVENT CRYOACTIVATION OF PROTEIN TO RENIN (WHICH RESULTS IN FALSELY ELEVATED RENIN LEVELS). To avoid delays in turnaround time when requesting multiple tests on frozen samples, PLEASE SUBMIT SEPARATE FROZEN SPECIMENS FOR EACH TEST REQUESTED.</p> <p>Special Instructions: The patient's posture at the time of collection should be noted (see Patient Preparation).</p> <p>Specimen Stability: Ambient: Unstable, Refrigerated : Unstable, Frozen: 14 days</p>			

GENERAL INFORMATION

Expected TAT	3 - 7 days
Clinical Use	<p>Renin is a proteolytic enzyme produced by the kidney in response to stimulation of renal beta-adrenergic receptors or by circulating catecholamines. Erect posture, exercise, sodium depletion, hemorrhage, and low cardiac output all increase renin secretion via one or more pathways.</p> <p>The measurement of plasma renin activity (PRA) is useful in evaluating hypertension. A normal or high PRA rules out primary aldosteronism, whereas a normal or low PRA helps rule out renal hypertension. Additionally, an elevated PRA may indicate renovascular hypertension due to renal artery stenosis.</p>
Notes	The renin in plasma is allowed to act on the plasma's endogenous substrate, angiotensinogen producing angiotensin I. This is measured by liquid chromatography/mass spectrometry (LC/MS-MS).
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