

Serpin A8/Angiotensinogen Protein, Rat (HEK293, His)

Cat. No.:	HY-P73651
Synonyms:	Angiotensinogen; Serpin A8; AGT; SERPINA8
Species:	Rat
Source:	HEK293
Accession:	P01015 (D25-V477)
Gene ID:	24179
Molecular Weight:	Approximately 58-75 kDa due to the glycosylation.

PROPERTIES

AA Sequence	<pre> DRVYIHPFHL LYYSKSTCAQ LENPSVETLP EPTFEPVPIQ AKTSPVDEKT LRDKLVLATE KLEAEDRQRA AQVAMIANFM GFRMYKMLSE ARGVASGAVL SPPALFGTLV SFYLGSLDPT ASQLQVLLGV PVKEGDCTSR LDGHKVLTA QAVQGLLVTQ GGSSSQTPLL QSTVVGLFTA PGLRLKQPFV ESLGPFTPAI FPRSLLDLSTD PVLAAQKINR FVQAVTGWKM NLPLEGVSTD STLFFNTYVH FQGMGRGFSQ LTGLHEFWVD NSTSVSVPML SGTGNFQHWS DAQNNFSVTR VPLGESVTLL LIQPQCASDL DRVEVLVFAQH DFLTWIKNPP PRAIRLTL LEIRGSYNLQ DLLAQAKLST LLGAEANLGK MGD TNPRVGE VLNSILLELQ AGEEEQPTES AQQPGSPEVL DVTLS SPFLF AIYERDSGAL HFLGRVDNPQ NVV </pre>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

Serpin A8, also known as angiotensinogen, stands as an essential component within the intricate network of the renin-angiotensin system (RAS), serving as a potent regulator of blood pressure, body fluid, and electrolyte homeostasis. This multifaceted protein exerts its influence on various physiological processes. Directly impacting vascular smooth muscle, it functions as a formidable vasoconstrictor, affecting cardiac contractility and heart rate through interactions with the sympathetic nervous system. Furthermore, angiotensinogen plays a crucial role in renal function by modulating sodium and water absorption, achieved by stimulating adrenal cortex zona glomerulosa cells to synthesize and release aldosterone. These diverse actions are mediated by its binding to angiotensin receptors AGTR1 and AGTR2. Beyond its role in the RAS, angiotensinogen demonstrates additional interactions, such as binding to the DEAR/FBXW7-AS1 receptor, expanding its involvement in cellular signaling networks.

Caution: Product has not been fully validated for medical applications. For research use only.

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