

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

Cat. No.:	HY-P73652
Synonyms:	Angiotensinogen; Serpin A8; AGT; SERPINA8
Species:	Mouse
Source:	HEK293
Accession:	P11859 (D25-V477)
Gene ID:	11606
Molecular Weight:	Approximately 50-70 kDa

PROPERTIES

AA Sequence	<pre> DRVYIHPFHL LYHNKSTCAQ LENPSVETLP ESTFEPVPIQ AKTSPVNEKT LHDQLVLAAE KLEDEDRKRA AQVAMIANFV GFRMYKMLNE AGSGASGAIL SPPALFGTLV SFYLGSLDPT ASQLQTLLDV PVKEGDCTSR LDGHKVLAAAL RAVQGLLVTQ GGSSSQTPLL QSIMVGLFTA PGFRLKHSFV QSLALFTPAL FPRSLDLSTD PVLATEKINR FIKAVTGWKM NLPLEGVSTD STLLFNTYVH FQGTMRGFSQ LPGVHEFWVD NSISVSVPMI SGTGNFQHWS DAQNNFSVTC VPLGERATLL LIQPHCTSDL DRVEALIFRN DLLTWIENPP PRAIRLTL PQ LEIRGSYNLQ DLLAEDKLP LLGAEANLSN IGD TNPRVGE VLNSILLELK AGEEEQPTTS VQQPGSPEAL DVTLS SPFLF AIYEQDSGTL HFLGRVNNPQ SVV </pre>
Biological Activity	Measured in a cell proliferation assay using HT-29 human coloncancer cells. The ED ₅₀ for this effect is 41.71 ng/mL, corresponding to a specific activity is 2.398×10 ⁴ Unit/mg.
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, commonly known as angiotensinogen, stands as an indispensable component within the intricate framework of the renin-angiotensin system (RAS), playing a pivotal role in the precise regulation of blood pressure, body fluid, and electrolyte homeostasis. This multifaceted protein exerts its influence across various physiological realms, directly impacting vascular smooth muscle as a potent vasoconstrictor. Its reach extends to the cardiovascular system, where it influences cardiac contractility and heart rate through interactions with the sympathetic nervous system. Moreover, angiotensinogen orchestrates dynamic changes in renal function by modulating sodium and water absorption, accomplished by stimulating zona glomerulosa cells in the adrenal cortex to synthesize and release aldosterone. These diverse actions are executed through its adept binding to angiotensin receptors AGTR1 and AGTR2. Beyond its central role in the RAS, angiotensinogen engages in additional interactions, exemplified by its binding to the DEAR/FBXW7-AS1 receptor, further expanding its involvement in intricate cellular signaling networks.

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

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