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

Cat. No.:	HY-P73653
Synonyms:	Angiotensinogen; Serpin A8; AGT; SERPINA8
Species:	Human
Source:	HEK293
Accession:	P01019 (D34-A485)
Gene ID:	183
Molecular Weight:	52-64 kDa

PROPERTIES

AA Sequence	D R V Y I H P F H L V I H N E S T C E Q L A K A N A G K P K D P T F I P A P I Q A K T S P V D E K A L Q D Q L V L V A A K L D T E D K L R A A M V G M L A N F L G F R I Y G M H S E L W G V V H G A T V L S P T A V F G T L A S L Y L G A L D H T A D R L Q A I L G V P W K D K N C T S R L D A H K V L S A L Q A V Q G L L V A Q G R A D S Q A Q L L L S T V V G V F T A P G L H L K Q P F V Q G L A L Y T P V V L P R S L D F T E L D V A A E K I D R F M Q A V T G W K T G C S L M G A S V D S T L A F N T Y V H F Q G K M K G F S L L A E P Q E F W V D N S T S V S V P M L S G M G T F Q H W S D I Q D N F S V T Q V P F T E S A C L L L I Q P H Y A S D L D K V E G L T F Q Q N S L N W M K K L S P R T I H L T M P Q L V L Q G S Y D L Q D L L A Q A E L P A I L H T E L N L Q K L S N D R I R V G E V L N S I F F E L E A D E R E P T E S T Q Q L N K P E V L E V T L N R P F L F A V Y D Q S A T A L H F L G R V A N P L S T A
Biological Activity	Measured in a cell proliferation assay using HT-29 human coloncancer cells. The ED_{50} for this effect is 160.2 ng/mL, corresponding to a specificactivity is 6242.19 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.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. 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 indispensable element within the renin-angiotensin system (RAS), a potent regulatory framework governing blood pressure, body fluid, and electrolyte homeostasis. Operating directly on vascular smooth muscle, it exerts a formidable vasoconstrictive influence and dynamically influences cardiac contractility and heart rate through interactions with the sympathetic nervous system. Additionally, angiotensinogen plays a pivotal role in shaping renal sodium and water absorption, eliciting its effects by stimulating zona glomerulosa cells in the adrenal cortex to synthesize and release aldosterone. This multifaceted functionality is mediated through the binding of angiotensinogen to angiotensin receptors AGTR1 and AGTR2, orchestrating a cascade of physiological responses. Beyond its pivotal role in the RAS, angiotensinogen exhibits an ability to engage with the DEAR/FBXW7-AS1 receptor, expanding its repertoire of molecular interactions and suggesting broader implications for its regulatory influence.

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