Datasheet for ABIN7505789

AGT Protein (AA 1-477) (His tag)

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Overview

Quantity:	100 µg
Target:	AGT
Protein Characteristics:	AA 1-477
Origin:	Rat
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This AGT protein is labelled with His tag.

Product Details

Sequence:	Met1-Val477
Characteristics:	A DNA sequence encoding the Rat AGT protein (P01015) (Met1-Val477) was expressed with a C-His.
Purity:	> 95 % as determined by reducing SDS-PAGE.

Target Details

Target:	AGT
Alternative Name:	Angiotensinogen (AGT Products)
Background:	Abbreviation: Angiotensinogen;AGT Target Synonym: Angiotensinogen;Serpin A8;Agt;Serpina8 Background: Angiotensinogen, also known as AGT and SerpinA8, is a member of the serpin family. It is an α-2-globulin that is produced constitutively and released into the circulation

Target Details

	mainly by the liver. Angiotensinogen is a essential component of the renin-angiotensin system (RAS) and a potent regulator of blood pressure. Angiotensinogen can be schematically considered to consist of a combination of an angiotensin I (Ang I) function, located at the N-terminal end, and the presence of a serpin (serine protease inhibitor) structure at the opposite end. Angiotensinogen is cleaved into three chains: Angiotensin-1 (Ang I), Angiotensin-2 (Ang II), and Angiotensin-3 (Ang III). Angiotensin-1 is a substrate of ACE (angiotensin converting enzyme) that removes a dipeptide to yield the physiologically active peptide angiotensin-2. Angiotensin-1 and angiotensin-2 can be further processed to generate angiotensin-3, angiotensin-4. Angiotensin 1-7 is cleaved from angiotensin-2 by ACE2. Angiotensin-2 acts directly on vascular smooth muscle as a potent vasoconstrictor, affects cardiac contractility and heart rate through its action on the sympathetic nervous system. Angiotensinogen/AGT and its renin-cleaved product, des(Ang I)AGT, are angiogenesis inhibitors, both in vitro and in vivo at concentrations within the range of those observed in plasma. The Angiotensinogen products, that is angiotensin II and possibly angiotensin II-related products, have been found to act locally in modulating adipose tissue growth in an autocrine/paracrine manner.
Molecular Weight:	Calculated MW: 52.36 kDa Observed MW: 60 kDa
UniProt:	P01015
Pathways:	JAK-STAT Signaling, ACE Inhibitor Pathway, EGFR Signaling Pathway, Peptide Hormone Metabolism, Regulation of Systemic Arterial Blood Pressure by Hormones, Regulation of Lipid Metabolism by PPARalpha, Protein targeting to Nucleus, Feeding Behaviour, Monocarboxylic Acid Catabolic Process, Dicarboxylic Acid Transport, Positive Regulation of Response to DNA Damage Stimulus, Regulation of long-term Neuronal Synaptic Plasticity

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Buffer:	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01 % Tween80 are added as protectants before lyophilization.
Storage:	4 °C,-20 °C,-80 °C

Handling

Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Expiry Date:	12 months