

Datasheet for ABIN7321055

AGT Protein (His tag)**1** Image[Go to Product page](#)

Overview

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

Product Details

Purpose:	Recombinant Rat Angiotensinogen/AGT Protein (His Tag)
Sequence:	Met1-Val477
Characteristics:	A DNA sequence encoding the rat Agt (NP_602308.1) (Met1-Val477) was expressed with a polyhistidine tag at the C-terminus.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin Level:	< 1.0 EU per µg protein as determined by the LAL method.

Target Details

Target:	AGT
Alternative Name:	Angiotensinogen/AGT (AGT Products)
Background:	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 mainly by the liver. Angiotensinogen is a essential component of the renin-angiotensin system

Target Details

(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. Defects in AGT are associated with susceptibility to essential hypertension and renal tubular dysgenesis (RTD). Several serpins (antithrombin, maspin, pigment epithelial-derived factor, and kallistatin) have been recently shown to exert an antiangiogenic activity, suggesting a common mechanism of endothelial cell proliferation and migration. Angiotensinogen/AGT and its renin-cleaved product, des(Ang I)AGT, are also 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. The transient or chronic overexpression of angiotensinogen in adipose tissue favors lipogenesis in adipocytes and leads to a 'vicious' circle whereby adipose tissue development is further increased.

Synonym: Serpina8

Molecular Weight: 51 kDa

NCBI Accession: [NP_602308](#)

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

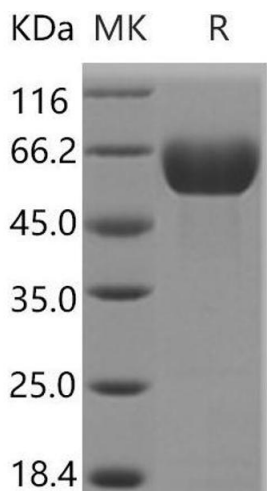
Handling

Format: Lyophilized

Handling

Reconstitution:	Please refer to the printed manual for detailed information.
Buffer:	Lyophilized from sterile PBS, pH 7.4
Storage:	4 °C,-20 °C,-80 °C
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.

Images



Western Blotting

Image 1.