

Mouse Angiotensinogen / SerpinA8 / AGT Protein (His Tag)

Catalog Number: 50337-M08H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

AI265500, AngI, AngII, Aogen, Serpina8

Protein Construction:

A DNA sequence encoding the mouse AGT (P11859) (Met 1-Val 477) was expressed, with a C-terminal polyhistidine tag.

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 96 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Asp 25

Molecular Mass:

The secreted recombinant mouse AGT consists of 464 amino acids and has a calculated molecular mass of 50.8 kDa. The apparent molecular mass of the recombinant mouse AGT is approximately 58 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

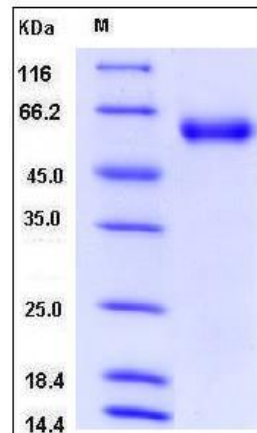
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Angiotensinogen, also known as AGT and SERPINA8, is a member of the serpin family. It is α_2 -globulin that is produced constitutively and released into the circulation mainly by the liver. Angiotensinogen is an essential component of the renin-angiotensin system (RAS) and a potent regulator of blood pressure. It is expressed by the liver and secreted in plasma. 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).

References

1. Goodfriend, TL. et al., 1975, Circ. Res. 36: 38-48.
2. Weir, MR. et al., 1999, Am. J. Hypertens. 12: 205-13.
3. Rice, GI. et al., 2004, Biochem. J. 383: 45-51.
4. Jankowski, V. et al., 2007, Arterioscler Thromb Vasc Biol. 27 (2): 297-302.

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