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Datasheet for ABIN1097517

**SERPINA7 Protein (AA 21-415) (His tag)**

## Overview

Quantity:	50 µg
Target:	SERPINA7
Protein Characteristics:	AA 21-415
Origin:	Human
Source:	Human Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SERPINA7 protein is labelled with His tag.

## Product Details

Purpose:	Recombinant Human Serpin A7/TBG (C-6His)
Sequence:	ASPEGKVTAC HSSQPNATLY KMSSINADFA FNLYRRFTVE TPDKNIFFSP VSISAALVML SFGACCSTQT EIVETLGFNL TDTPMVEIQH GFQHLICSLN FPKKELELQI GNALFIGKHL KPLAKFLNDV KTLYETEVFS TDFSNISAAK QEINSHVEMQ TKGKVVGLIQ DLKPNTIMVL VNYIHFKAQW ANPFDPSKTE DSSSFLIDKT TTVQVPMMHQ MEQYYHLVDM ELNCTVLQMD YSKNALALFV LPKEGQMESV EAAMSSSKTLK KWNRLQKGW VDLFVPKFSI SATYDLGATL LKMGIQHAYS ENADFSGLTE DNGLKLSNAA HKAVLHIGEK GTEAAVPEV ELSDQPENTF LHPPIQIDRS FMLLILERST RSILFLGKVV NPTEAVDHHH HHH
Characteristics:	Recombinant Human Serpin A7 produced by transfected human cells is a secreted protein with sequence (Ala21-Ala415) of human SERPIN A7 fused with a polyhistidine tag at the C-terminus.
Purity:	> 95 % as determined by reducing SDS-PAGE.
Sterility:	0.2 µm filtered

## Product Details

Endotoxin Level: Less than 0.1 ng/μg (1 IEU/μg) as determined by LAL test

## Target Details

Target: SERPINA7

Alternative Name: t4-binding-globulin ([SERPINA7 Products](#))

Sub Type: Fusionprotein

Background: Serpin A7 is a secreted protein which belongs to the Serpin family. As a 54 kDa protein, Serpin A7 is synthesized primarily in the liver and secreted in plasma. Genomically, Serpin A7 is a serpin, although it has no inhibitory function like many other members of this class of proteins. Serpin A7 binds thyroid hormone in circulation. It is one of three proteins (along with transthyretin and albumin) responsible for carrying the thyroid hormones thyroxine (T4) and 3,5,3'-triiodothyronine (T3) in the bloodstream. Of these three proteins, Serpin A7 has the highest affinity for T4 and T3, but is present in the lowest concentration. Despite its low concentration, Serpin A7 carries the majority of T4 in serum. Due to the very low serum concentration of T4 and T3 in the blood, Serpin A7 is rarely more than 25% saturated with its ligand. Unlike transthyretin and albumin, Serpin A7 has a single binding site for T4/T3. Serpin A7 tests are sometimes used in finding the reason for elevated or diminished levels of thyroid hormone, and defects in Serpin A7 are a cause of Serpin A7 deficiency.

Alternative Names: Thyroxine-Binding Globulin, Serpin A7, T4-Binding Globulin, SERPINA7, TBG

Molecular Weight: 45.14 kDa

UniProt: [P05543](#)

Pathways: [Hormone Transport](#)

## Application Details

Restrictions: For Research Use only

## Handling

Format: Lyophilized

Reconstitution: It is not recommended to reconstitute to a concentration less than 100 μg/mL.  
Dissolve the lyophilized protein in ddH<sub>2</sub>O.  
Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

Buffer: Lyophilized from a 0.2 μm filtered solution of 20 mM PB, 150 mM NaCl, 5 % Threhalose, pH 7.2.

## Handling

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Handling Advice:	Always centrifuge tubes before opening. Do not mix by vortex or pipetting.
Storage:	4 °C/-20 °C/-80 °C
Storage Comment:	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Expiry Date:	3 months