Human Serum Albumin (HSA) ELISA Kit

Catalog Number	LDG00031E
Package	96 T (8 x 12 strips) / Customized package

For full product information, images and publications, please visit our website.

Overview

Description

HSA is the most abundant protein in blood, playing a crucial role in maintaining colloid osmotic pressure, transporting various molecules (such as fatty acids, hormones, drugs, etc.), and exerting antioxidant effects. Furthermore, during the production of biopharmaceutical products, HSA may be introduced due to its widespread applications (for example, as a stabilizer and excipient). Monitoring and controlling the residual amount of HSA is essential for ensuring the safety, efficacy, and regulatory compliance of these products. Leadgene® Human serum albumin ELISA Kit is an enzyme-linked immunosorbent assay (ELISA) for the quantitative detection of HSA level in sample solution. The Human serum albumin ELISA Kit is for research use only (RUO). Not suitable for use in diagnostic or therapeutic procedures.

Test Principle

Human serum albumin (HSA) ELISA Kit is used to detect HSA in samples by sandwich ELISA method. This assay uses microplate pre-coated with mouse anti-HSA monoclonal antibody to the solid phase. HSA in the samples conjugates on solid phase and then react with the HRP conjugated mouse anti-HSA VHH antibody. Subsequent wash steps will residual unbound antibody. After incubation with substrate solution, the reaction is determined by the absorbance at 450 nm. Quantification of HSA level is accomplished by comparing the absorbance with standard curve.

Specifications

Application

Sandwich ELISA analysis

Sensitivity

Limit of detection (LoD): 1.064 ng/mL.
Limit of quantification (LoQ): 23.09 ng/mL.

Specificity

Human serum albumin (HSA)

Assay Range

15.62 ng/mL-1000 ng/mL

Background

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Synonyms

HSA, human serum albumin, albumin detection, quantitative ELISA, nephropathy biomarker, proteinuria, diagnostic assay, kidney function marker

Instruction

Shipping

The product is shipped with polar packs. Upon receipt, store it immediately at 2-8°C for long term storage.

Stability & Storage

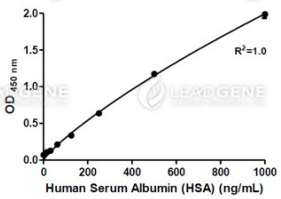
This product is stable after storage at:

- 2-8°C for unopened product.

Please refer to product manual for storage constructions.

Image

Standard	Human serum albumin (HSA) (ng/mL)	OD 450 nm	
1	1000	2.040	1.936
2	500	1.148	1.202
3	250	0.636	0.639
4	125	0.326	0.344
5	62.5	0.187	0.237
6	31.25	0.128	0.128
7	15.62	0.105	0.112
Blank	0	0.074	0.067



Typical data.
The following data are for demonstration only.

	1	2	3	4
A	Standard 1 (1000 ng/mL)	Standard 1 (1000 ng/mL)	Sample 1	Sample 5
B	Standard 2 (500 ng/mL)	Standard 2 (500 ng/mL)	Sample 1	Sample 5
C	Standard 3 (250 ng/mL)	Standard 3 (250 ng/mL)	Sample 2	Sample 6
D	Standard 4 (125 ng/mL)	Standard 4 (125 ng/mL)	Sample 2	Sample 6
E	Standard 5 (62.5 ng/mL)	Standard 5 (62.5 ng/mL)	Sample 3	Sample 7
F	Standard 6 (31.25 ng/mL)	Standard 6 (31.25 ng/mL)	Sample 3	Sample 7
G	Standard 7 (15.62 ng/mL)	Standard 7 (15.62 ng/mL)	Sample 4	Sample 8
H	Blank	Blank	Sample 4	Sample 8

An example of orientation of standards, blanks and samples in the stripwells microplate.

Reagents (Store at 2-8°C)	Quantity 1x96 well kit	Reconstitution
Human serum albumin (HSA) ELISA plate Stripwell microplate with 96 anti-human serum albumin monoclonal antibodies coated wells	96 wells (12 x 8-well strips)	Ready for use
Standard Human serum albumin (HSA) lyophilized from buffered protein solution with preservatives	2 vials (Lyophilized form)	Refer to the vial label for reconstitution volume. Reconstitute by adding Standard reconstitution buffer to be a stock solution of 5000 ng/mL. (see procedure, section 8.(2))
Standard reconstitution buffer Buffered protein solution with preservatives	2 vials (1.1 mL)	Ready for use
Standard & sample diluent buffer Buffered protein solution with preservatives	1 vial (12 mL)	Ready for use
HRP-antibody conjugate HRP conjugated anti-human serum albumin (HSA) monoclonal antibody in buffered protein solution with preservatives	1 vial (70 µL)	Dilute 200 x with HRP-antibody conjugated diluent buffer (see reagent preparation, section 5.A)
HRP-antibody conjugated diluent buffer Buffered solution with preservatives	1 vial (12 mL)	Ready for use
20 X wash buffer 20-fold concentrated solution of buffered surfactant with preservatives	1 vial (15 mL)	Dilute 20 x with distilled water (see reagent preparation, section 5.B)
TMB Chromogenic substrate (tetramethylbenzidine) for HRP	1 vial (12 mL)	Ready for use
Stop solution H_2SO_4 solution	1 vial (6 mL)	Ready for use
Microplate sealing film	2 sheet	N/A

Reagents provided and reconstitution.

Disclaimer : For Research Use or Further Manufacturing Only.

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