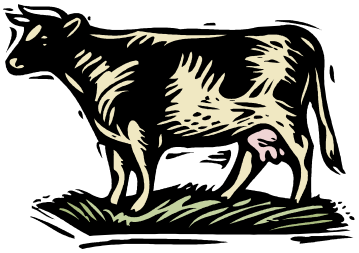


Purity check

Seramun Diagnostica GmbH

Serazym® Bovine Serum Albumin (BSA) sensitive (E-108)

Enzyme-linked immunosorbent assay for detection of bovine serum albumin in biological fluids

- simultaneous one-step assay
- short incubation times
- ready-to-use reagents
- quantitative results (ng/ml)

Introduction

The *Serazym*® Bovine Serum Albumin (BSA) sensitive ELISA enables the fast and sensitive quantification of bovine serum albumin in vaccines and other biological fluids.

Principle of the test

The *Serazym*® Bovine Serum Albumin (BSA) sensitive ELISA is a direct one–step two-site enzyme immunoassay using immobilized polyclonal antibodies to BSA and horseradish peroxidase labelled anti-BSA antibodies as detection system.

Test components

- 96-well microtitration plate
- 50 ml wash buffer, 10fold concentrated
- 70 ml sample diluent
- 7 x 1.0 ml BSA standards, ready to use
- 1.0 ml BSA control sample, ready to use
- 15 ml HRP-conjugate, ready to use
- 15 ml TMB-/substrate solution, ready to use
- 15 ml stop solution, ready to use

Attention: The *Serazym*® Bovine Serum Albumin (BSA) sensitive ELISA is a very sensitive assay. It is recommended to use disposable reagent containers for pipetting the components. Make sure that the glassware and plastic material used for buffer preparation and reagent handling are absolutely free of BSA.

Test procedure

- add 100 µl of the ready to use HRP-conjugate into the intended wells
- add 100 µl of the diluted samples and of the ready to use standards and the control into the intended wells and shake carefully
- incubate 60 min at 20…25 °C
- wash wells 5 x
- add 100 µl of TMB-/substrate solution to every well
- incubate 15 min at 20…25 °C protected from light
- add 100 µl of stop solution to every well
- read absorbances at 450 / ≥ 620 nm

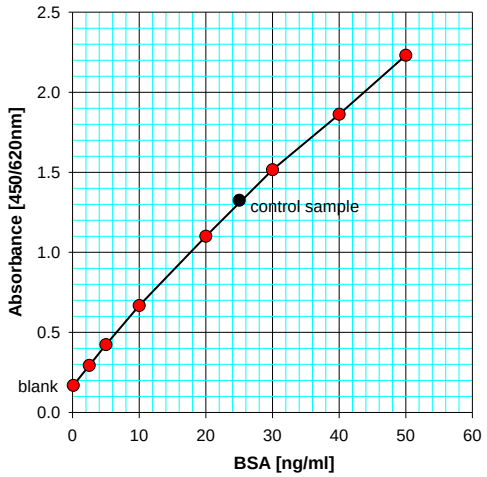
Quantification

Create a standard curve using the absorbances of the standards with BSA concentrations in the range from 2.5 ng/ml to 50 ng/ml.
Determine the BSA concentrations of the samples by referring their absorbances to the corresponding concentrations of the standard curve. Alternatively create a standard curve by including the sample diluent as standard S 8 with a concentration of 0.1ng/ml.

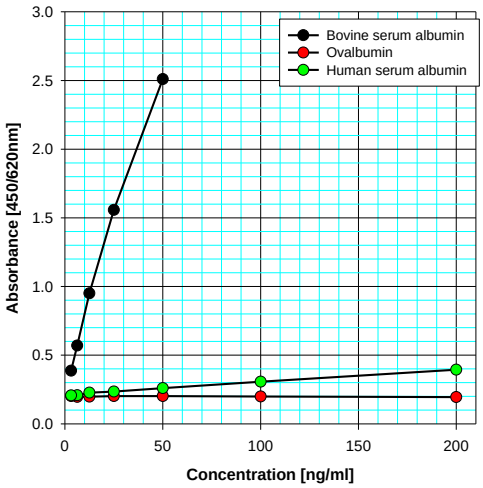
Test validity

Standard S 1	absorbance	≥ 1.50
Standard S 7	absorbance	≤ 0.50
Control sample	20 - 30 ng/ml	

Typical standard curve



Cross reactivity



Precision

Intra-assay coefficient of variation (n = 8)

Mean absorbance	Standard deviation	Coefficient of variation [%]
2.437	0.03	1.4
2.060	0.04	1.8
1.670	0.05	3.2
1.494	0.04	2.6
1.243	0.05	4.4
0.737	0.03	4.2
0.473	0.01	2.9
0.322	0.01	0.5

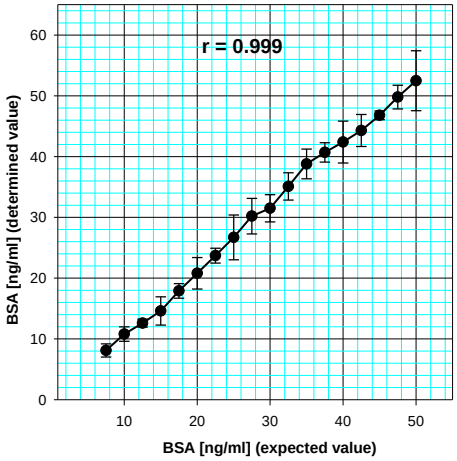
BSA concentration [ng/ml]	Standard deviation	Coefficient of variation [%]
50.1	0.92	2.0
39.8	0.91	2.4
30.0	1.20	4.3
25.9	0.84	3.5
20.2	1.12	5.9
9.9	0.56	6.1
5.0	0.22	4.7
2.5	0.03	1.1

Inter-assay coefficient of variation (n = 8)

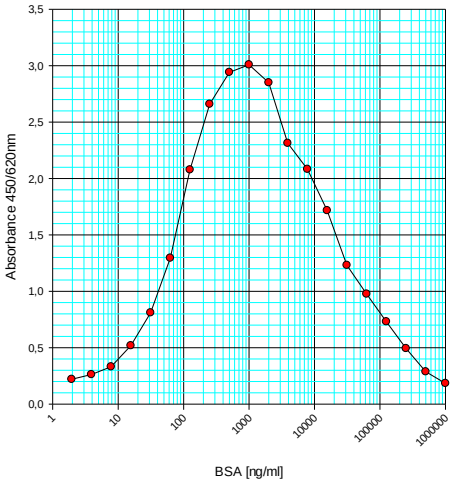
Mean absorbance	Standard deviation	Coefficient of variation [%]
2.087	0.10	5.1
1.205	0.07	5.9
0.715	0.04	5.5
0.466	0.03	6.7

BSA concentration [ng/ml]	Standard deviation	Coefficient of variation [%]
50.9	1.70	3.6
24.2	0.75	3.3
12.0	0.30	2.6
6.3	0.30	5.1

Linearity



High Dose Hook Effect



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