Serazym® Ovalbumin-ELISA E-041c

Enzyme immunoassay for quantitative detection of Ovalbumin

- short incubation times
- ready-to-use reagents
- quantitative results (ng/ml)

Introduction

The *Serazym*® Ovalbumin-ELISA enables the fast and sensitive quantification of Ovalbumin in vaccines and other culture supernatants won by use of chicken eggs.

Principle of the *Serazym*® ELISA

The *Serazym*® Ovalbumin-ELISA is a direct sandwich enzyme immunoassay using immobilized polyclonal anti-Ovalbumin-antibodies and anti-Ovalbumin-HRP-conjugate as detection system. Conjugate and samples are incubated simultaneously.

Test kit components

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

Test procedure

- add 100 µl of anti-Ovalbumin-HRP-conjugate to every well
- add 100 µl of the diluted samples and of the ready to use standards and controls
- incubate 60 min at 22…25 °C
- wash wells 5 x
- add 100 µl of TMB-/substrate solution to every well
- incubate 15 min at 22…25 °C protected from light
- add 100 µl of stop solution to every well
- read absorbances at 450/620 nm

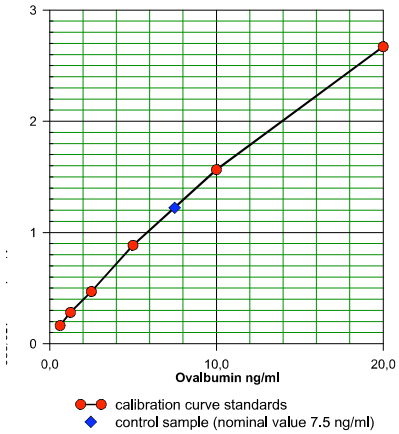
Quantification

Create a calibration curve using the absorbances of the standards with ovalbumin concentrations in the range from 0.625 ng/ml to 20.0 ng/ml.
Determine the ovalbumin concentrations of the samples by referring their absorbances to the corresponding concentrations of the calibration curve.

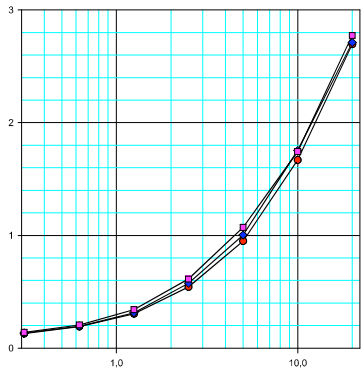
Validation

Standard S 6	absorbance	< 0.5
Standard S 1	absorbance	> 1.5
Control sample	5 - 10 ng/ml	

Typical calibration curve in the *Serazym*® Ovalbumin-ELISA



Titration of different Ovalbumin preparations in the *Serazym*® ELISA



Precision of the *Serazym*® ELISA

Intra-assay coefficient of variation (n=12)

Mean absorbance	Standard deviation	Coefficient of variation [%]
2.494	0.058	2.32
1.513	0.035	2.32
0.867	0.022	2.58
0.509	0.016	3.05
0.303	0.009	2.92
0.199	0.008	4.18

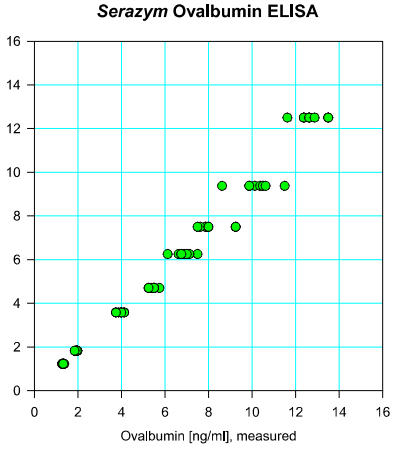
Ovalbumin concentration [ng/ml]	Standard deviation	Coefficient of variation [%]
19.9	0.65	3.27
10.1	0.31	3.08
4.9	0.16	3.28
2.5	0.10	3.89
1.27	0.05	3.02
0.68	0.05	6.73

Inter-assay coefficient of variation (n = 12)

Mean absorbance	Standard deviation	Coefficient of variation[%]
2.319	0.130	5.61
1.387	0.111	7.98
0.781	0.064	8.14
0.407	0.031	7.50
0.216	0.017	7.96

Ovalbumin concentration [ng/ml]	Standard deviation	Coefficient of variation [%]
10.07	1.02	10.14
4.99	0.47	9.48
2.40	0.19	8.10
1.24	0.10	8.05

Linearity of the *Serazym*® ELISA



Correlation of the Serazym ELISAs E-041a and E-041c