

Data Sheet for SeramunBlau® ELISA Substrates (2)

1 Products

Product name	Product code	Specifications, recommendations for use
SeramunBlau® fast2	S-100-TMB	<ul style="list-style-type: none"> Activity: high Incubation time: short* Incubation temperature: 20...37 °C or 68...100 °F
SeramunBlau® slow2 50	S-150-TMB	<ul style="list-style-type: none"> Activity: ~50% compared to SeramunBlau® fast2 Incubation time: long* Incubation temperature: 20...37 °C or 68...100 °F
SeramunBlau® slow2 70	S-170-TMB	<ul style="list-style-type: none"> Activity: ~70% compared to SeramunBlau® fast2 Incubation time: moderate* Incubation temperature: 20...37 °C or 68...100 °F
SeramunBlau® slow2 85	S-185-TMB	<ul style="list-style-type: none"> Activity: ~85% compared to SeramunBlau® fast2 Incubation time: moderate* Incubation temperature: 20...37 °C or 68...100 °F
SeramunBlau® automat fast	S-027-#-TMB	<ul style="list-style-type: none"> Activity: ~95% compared to SeramunBlau® fast2 Incubation time: short* Incubation temperature: 20...25 °C or 68...77 °F Adapted for automatic processing due to high tolerance against washing buffer
SeramunBlau® automat slow2	S-107-TMB	<ul style="list-style-type: none"> Activity: ~70% compared to SeramunBlau® fast2 Incubation time: moderate* Incubation temperature: 20...25 °C or 68...77 °F Adapted for automatic processing due to high tolerance against washing buffer
SeramunBlau® warm2	S-110-TMB	<ul style="list-style-type: none"> Activity: very low Incubation time: long* Incubation temperature: 20...37 °C or 68...100 °F
SeramunBlau® crystal2	S-117-TMB	<ul style="list-style-type: none"> Activity: high Incubation time: short* Incubation temperature: 20...37 °C or 68...100 °F Storage in white bottles possible
SeramunBlau® optislow2	S-130-TMB	<ul style="list-style-type: none"> Activity: ~70% compared to SeramunBlau® fast2 Incubation time: long* Incubation temperature: 20...25 °C or 68...77 °F

*Incubation times are dependent on enzyme concentrations and incubation temperatures. The indications are values for the orientation: short: up to 20 min, moderate: up to 30 min; long: up to 45 min.

2 Effective components and principle of function

SeramunBlau® ELISA substrates contain 3,3',5,5'-tetramethylbenzidine (TMB) as a chromogen and either hydrogen peroxide or sodium perborate as substrate. Furthermore, all substrate solutions are based on a suitable buffer system with an acidic pH-range.

In the presence of horseradish peroxidase, oxidation of TMB leads to a blue coloured solution. The oxidation of TMB can be monitored at 650 nm. This reaction can be stopped by adding stop-solution (e.g. diluted sulfuric acid) leading to a further oxidation of TMB and a yellow colouring of the solution. This final oxidation product can be monitored at 450 nm. Please note, that the measurement should take place 30 min after adding the stop solution at the latest.

3 Information on storage, transport and filling

The SeramunBlau® ELISA substrates should be stored at 2...8 °C (36...46 °F) protected from light. The shelf life printed on the label applies for the unopened original packaging.

During storage, a colour shift to light yellow might occur. The colour change does not affect the performance of the solution. After the expiry date the functionality of the solution is still given. However, lower activities (< 90% compared to a freshly prepared solution) can be expected.

Temperatures over 37 °C (100 °F) should be avoided during transport. The uncooled transport process should last less than one week.

Following instructions for bottling should be considered:

- Work in a dust free and darkened room.
- Avoid contact of the solutions with any metal parts.
- Wear powder-free gloves during bottling.
- Use clean bottles that are not permeable to light made from HDPE or PP.

4 General instructions for use in ELISA

All SeramunBlau® ELISA substrates should be used by qualified staff.

The substrate solutions can be used in qualitative and quantitative ELISA with manual or automatic procedures.

By using 96-well microtiter plates adding 100 µL of SeramunBlau® ELISA substrate per well is recommended. After incubation (protected from light) the reaction can be stopped and the photometric measurement can be carried out. Information on the incubation time and incubation temperature are shown in section 1. The unstopped solution should be measured at 650 nm (background correction: 492 nm) and the stopped solution should be measured at 450 nm (background correction: 620 nm).

The appearance of crystals in wells might occur if the peroxidase concentration is very high. This can lead to incorrect results. In those cases, either the incubation time or the conjugate concentration can be decreased or a lower concentrated acid for stopping can be used. The solutions must not be diluted with water or any other solvents.

5 Removal

The disposal of remains must be conform with the national and local legal requirements. Empty bottles can be used for local recycling or given to garbage disposals.