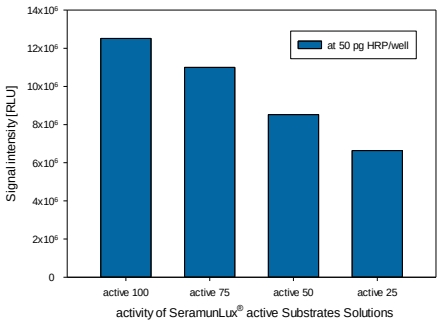
Data Sheet for SeramunLux® active Substrate Solutions

1 Products

Product name	Product code	Specifications, recommendations for use
SeramunLux® active 100	S-500-#-LUMAB	Two-component chemiluminescence substrate for HRP-based immunoassays (microwell plate assays, membran immunoassays), different activities available
SeramunLux® active 75	S-570-#-LUMAB	
SeramunLux® active 50	S-550-#-LUMAB	
SeramunLux® active 25	S-520-#-LUMAB	

The hash mark # is a spacer for different filling volumes.



2 Effective components and principle of function

The component *Part A* contains luminol and appropriate enhancers in a TRIS buffer. The component *Part B* contains peroxide in an acetate buffer.

The working solution is prepared by mixing equal parts of both components. The pH value of the working solution is between 8.7 and 8.9.

More information can be found in the safety data sheets.

The decomposition of peroxide is catalysed by horseradish peroxidase (HRP). This process uses electrons that were released in the transformation of luminol. The chemiluminescence originates from the decay of the excited luminol intermediate and the light yield is increased by the enhancers.

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3 Information on storage, transport and filling

Keep solutions tightly closed at 2…8 °C (36…46 °F) protected from light. Shelf life 36 months from date of manufacture (expiry date printed on the label).

The solution will still work beyond the expiry date, but a lower activity has to be taken into account.

Contaminated or leaked out substrate solution from damaged bottles should not be used and must be disposed of.

The solutions can be transported at room temperature. Temperatures exceeding 30 °C (86 °F) have to be avoided. Shipping should be completed within one week.

For bottling, please consider the following instructions:

- Work in a dust free room, protected from direct sunlight.
- Pay attention, that the solutions have no contact with metal parts (leading to catalysis) of your instruments. Closed systems of silicon tubes are favoured. Use different tubes for each substrate component.
- Clean all instruments and vessels very carefully.
- Never touch parts of the instruments that are in contact with the one of the solutions with the naked hand. Wear powder free gloves.
- Close the bottles immediately to minimize the influence of light and dust.
- Use bottles made of HDPE or PP.

4 General instructions for use

The SeramunLux® active substrates may be used by trained technical staff only.

Preparation of the working solution: Mix equal volumes of both components *Part A* and *Part B*. The working solution is usable at least for 48 hours at room temperature.

Application in chemiluminescence immunoassay: Following to the HRP conjugate incubation step, the microtiter plate has to be washed efficiently and residual liquid has to be removed thoroughly. Then dispense at least 50 µl up to 200 µl of the working solution into each well to start the enzyme-substrate reaction. The measurement can start directly after substrate addition. Incubation times between 5 and 15 minutes are recommended. Exceeding 30 minutes between adding substrate solution and measurement should be avoided.

Application in Western blot: The well-blocked and washed membrane is to be covered with the working solution (approx. 100 µl/cm^2) and to be shaken for about 2 minutes (20/min, horizontal shaker). The working solution is to be decanted and the wet membrane is wrapped into a foil. The picture can then be taken immediately, preferably with a luminescence imager. Generally, some seconds will be sufficient, but the exposure time can be prolonged to up to 60 minutes, if needed.

5 Removal

Disposal of remains must be conform with national and local legal regulations. Disposal of packaging must comply with national and local regulations for disposal.

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