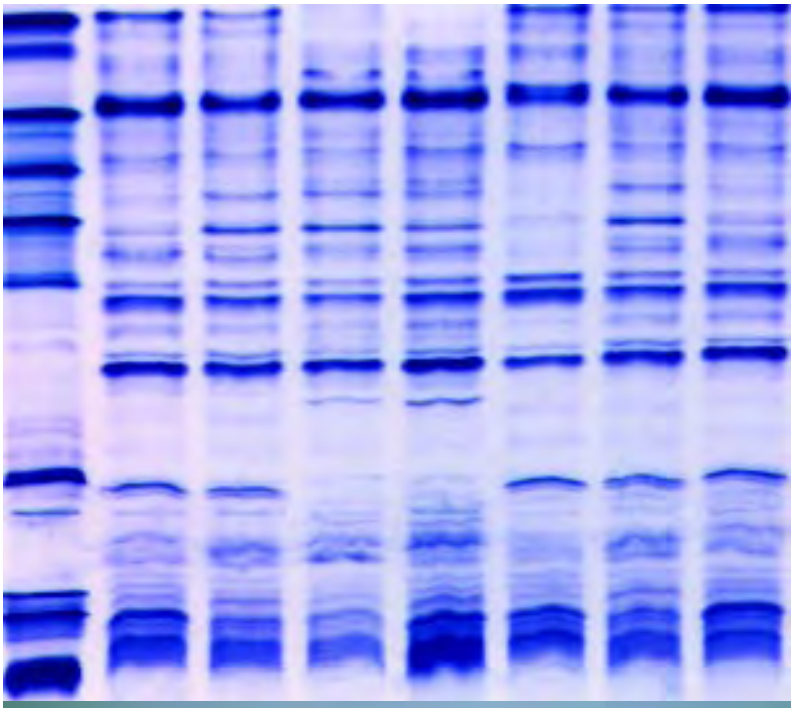
Bedienungsanleitung
Instruction Manual



SERVA
Electrophoresis

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INSTRUCTION MANUAL

SDS Gel Kit 10 % 25S (Cat. No. 43359)
SDS Gel Kit 10 % 52S (Cat. No. 43360)
SDS Gel Kit 15 % 25S (Cat. No. 43361)
SDS Gel Kit 15 % 52S (Cat. No. 43362)

1D Electrophoresis with 1D SDS PAGE Kits

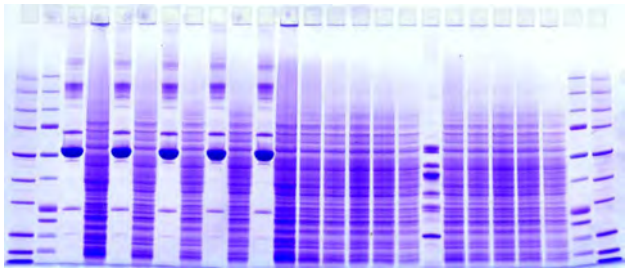


Fig. 1a: 1D SDS Gel 10 % , Coomassie staining

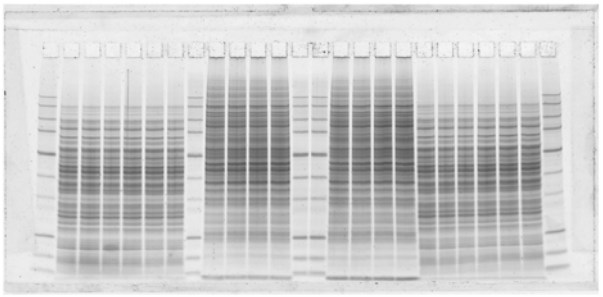


Fig. 1b: 1D SDS gel NF 12.5%; LavaPurple staining

1D SDS PAGE kits contains ready-to-use SDS polyacrylamide gels, running buffers, paper wicks, and sample diluters are available from SERVA. The gels are polymerized on plastic backing, have a size of 25 x 12.5 cm x 0.45 mm thick and are available with either 25 x 15 µL slots (25S) or 52 x 6 µL (52 S) slots. Various gel concentrations are available: 10% T; 12.5% T; 15% *T*. Two types of plastic backing are availale: a standard film for visible staining methods and a non-fluorescent film („NF“) specifically designed for fluorescent pre-labelling of proteins (DIGE) and/or fluorescent staining (LavaPurple). This backing is also suitable for visible staining methods such as Coomassie or Silver. For long shelf-life and optimal separation a Tris-tricine gel chemistry is used which maintains the pH of the gel is below 7.

Sample pre-treatment: Double the sample volume by adding an equal volume of sample buffer (2x) then dilute the sample to acheive the an appropriate gel loading concentration (this dends on the sensitivity of staining method used e.g. Coomassie Blue, Silver Staining or LavaPurple) using 1 x sample diluter. Then reduce and alkylate your sample.

Always wear powder free disposable gloves.

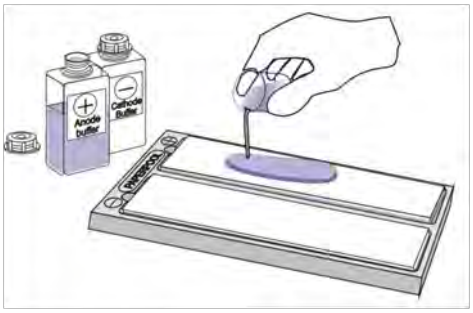
Important: Only use the SERVA buffer kit for the running buffers.

1. Switch the thermostatic circulator on, set to 15 °C. Switch the FlatTop Tower on and set the valve to “*Bypass*“ to avoid water condensation on the gel surface.

2. Lay two electrode wicks into the compartments of the PaperPool. Apply 43 mL of the respective electrode buffer toeach wick and allow to soak for at least 10 minutes (Fig 2).

3.Apply 3 mL cooling contact fluid onto the cooling plate.

4. Remove the gel from its packaging. Remove the cover -film. Grip the gel (surface-up) at the two lateral edges at the protruding film, bend it like an “*U*“ and slide the film-backing left and right on the cooling plate to distribute the cool contact fluid evenly (Fig. 3). Remove excess cooling fluid along film edges with lint-free tissue paper.



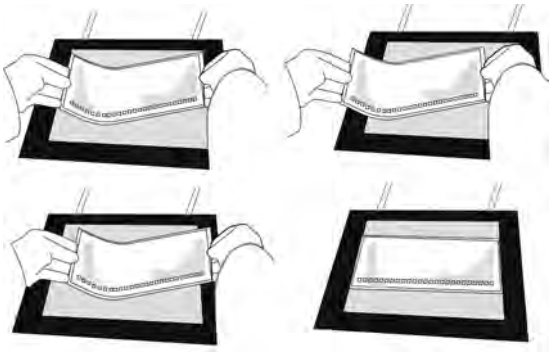


Fig. 3

5. Remove excess electrode buffer from the wicks by tilting the electrode wicks along one long edge and dab it on the PaperPool bottom (fig. 4).

6. Place the electrode wicks onto the gel edges overlapping them by at least 2 mm. Hold wicks horizontally! Never sloped, because this would cause unequal buffer concentration along the wick. Smooth out air bubbles with bent tip forceps.

7. Pipette 15 µL (25 S) or 6µL (52 S) of sample into the sample wells.

8. Clean platinum electrode wires before (and after) each electrophoresis run with moist tissue paper.

9. Close the lid while lowering the electrodes on the wicks, plug the cables in, turn the valve to cooling (15 °C).

10. Turn on your power supply and start the run according to table 1 or 2 depending on your sample type.

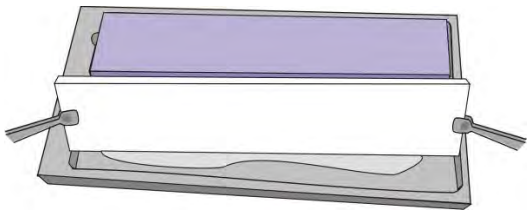


Fig. 4

Tab. 1: Running conditions (15°C): Quick run for normal samples (total 2 h 20 min)

1 Gel:	Limit V	Limit mA	**Set W**	**Time**
phase 1	600 V	42 mA	30 W	1 h
phase 2	1000 V	50 mA	60 W	1 h

Tab. 2: Running conditions (15 °C) Slow run for difficult samples (total about 2 h 30 min)

1 Gel:	Limit V	Limit mA	**Set W**	**Time**
phase 1	250 V	30 mA	10 W	45 min
phase 2	700 V	42 mA	30 W	45 min
phase 3	1000 V	50 mA	60 W	1 h

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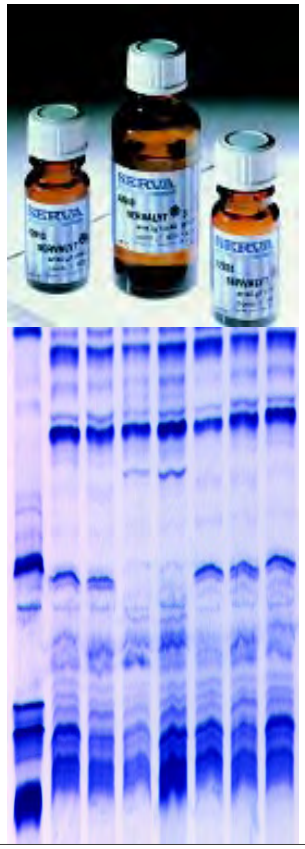

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