

Product No. 12981

Rapid Running Buffer Solution (20×) for SDS-PAGE

This product is a running buffer for SDS-PAGE (Laemmli method).

Features

- Short SDS-PAGE runs, even under low voltage.
- Wide-range separation: By replacing the standard Laemmli running buffer with this product, separation is improved in the low-MW range. Even using the same low-gel percent gel, you can get good results for high-MW samples using the standard Laemmli buffer, and sharp bands in the low-MW range using this product.
- Increase transfer efficiency in western blotting by using lower-percentage gel.

Protocol

For SDS-PAGE with mini gel [8cm(H)×9cm(W)×1mm(T)]:

1. Prepare 1× solution according to the volume of the electrophoresis buffer chamber.
The ratio of deionized water : 20× solution is 19 : 1.
2. Set the gel in the electrophoresis device and gently pour the 1× solution into the buffer chamber.
3. Set the voltage of the power supply. Use a constant voltage of 200-250V (see the table.1).
4. The rest of the protocol is the same as SDS-PAGE (Laemmli method).

Table 1. Effect of this product with Laemmli method gel:

Running buffer		This product (1×, 380mL)		Laemmli method (0.025mol/L-Tris, 0.192mol/L-Glycine, 0.1%SDS, 380mL)	
Gel (%)		8 %		12 %	
		Run time (minutes)	Temperature increase (C)	Run time (minutes)	Temperature increase (C)
Constant voltage (V)	200	34	21	59	20
	250	24	26	44	25
Separation					

Attention

- This product is a running buffer for SDS-PAGE, not for Native PAGE.
- Separation range becomes focused on lower MW when using this product instead of Laemmli running buffer. We recommend using a gel percentage that is 4% lower.
- Run time and temperature increase are affected by gel size, gel composition, volume of running buffer, temperature of running buffer, electrophoresis device, etc.
- Pre-stained protein markers may show a different molecular weight than their actual weight due to the dye.

Reference

Laemmli, U.K. : Nature, 227, 680 (1970)

Storage

Room temperature

Expiration

Expiration date is stated on the product label.

Packing

250 mL (Product No.12981-74)