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ProductInformation

Acrylamide/Bis-acrylamide, 30% solution
(Mix Ratio 37.5:1)

Catalog Number **A3699**
Storage Temperature 2–8 °C

Product Description

The Acrylamide/Bis-acrylamide solution is used in protein and nucleic acid electrophoresis. The solution concentration (30%) is based on the total weight of both the acrylamide and bis-acrylamide. The mix or feed ratio (w/w) of acrylamide:bis-acrylamide is 37.5:1. The solution is prepared from electrophoresis grade acrylamide and bis-acrylamide in ultrapure water. The product is passed through a 0.2 µm filter.

The product is suitable for electrophoresis.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store the product at 2–8 °C.

Procedure

The following formula may be used to calculate the volume of stock solution required for a gel concentration of <30%:

$$V_r = \frac{c \times V_t}{30\%}$$

Where:
V_r is the required volume of Acrylamide/Bis-acrylamide, 30% Solution
c is the final desired acrylamide concentration (%)
V_t is the total volume of final solution to be prepared

To prepare gels for use in the Laemmli system, the following solutions may be combined as indicated in Tables 1 and 2.

Solution A - Acrylamide/Bis-acrylamide 30% Solution, Catalog Number A3699

Solution B - Combine:

	Catalog No.	Amount
Trizma® Base	T6066	7.28 g
TEMED	T9281	92 µl

Adjust the pH of the solution to 8.9 with 1 M HCl and add ultrapure water to 40 ml final volume.

Solution C - Combine:

Trizma Base	T6066	1.21 g
TEMED	T9281	92 µl

Adjust the pH of the solution to 6.9 with 1 M HCl and add ultrapure water to 20 ml final volume.

Solution D - Dissolve 1 g of Sodium Dodecyl Sulfate (Catalog Number L3771) in 10 ml of ultrapure water and filter.

Solution E - Dissolve 60 mg of Ammonium Persulfate (Catalog Number A3678) in 5 ml of ultrapure water. Prepare fresh each day.

See Tables 1 and 2 for mixing instructions.

Table 1.
Separating Gel Solution (Final volume = 20 ml)

Component	Final Acrylamide Concentration									
	5%	6%	7%	8%	9%	10%	11%	12%	15%	20%
Ultrapure Water (ml)	10.47	9.80	9.13	8.47	7.80	7.13	6.47	5.80	3.80	0.47
Solution A (ml)	3.33	4.00	4.67	5.33	6.00	6.67	7.33	8.00	10.00	13.33
Solution B (ml)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Solution D (ml)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Solution E (ml)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Table 2.
Stacking Gel Solution (Final volume = 8 ml)

Component	Final Acrylamide Concentration
	3%
Ultrapure Water (ml)	5.52
Solution A (ml)	0.80
Solution C (ml)	1.00
Solution D (ml)	0.08
Solution E (ml)	0.60

References

1. Laemmli, U.K., Nature, **227**, 680 (1970).

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