

Acrylamide/Bis-acrylamide Solution 30% (19:1)

<u>Product Name</u>	<u>Product Code</u>	<u>Kit Packing</u>
Acrylamide/Bis-acrylamide Solution 30% (29:1)	ML036-100ML	100 ml
	ML036-500ML	500 ml

Introduction: Acrylamide/Bis-acrylamide Solution 30% (19:1) is based upon the total weight of both the acrylamide and bis-acrylamide which are mixed in 19:1 ratio. The solution is provided in a ready-to-use form, reducing the dust, inhalation, and contact hazard associated with weighing and preparing acrylamide and bis-acrylamide powders and solutions.

Description: SDS-PAGE is used for the separation of proteins through electrophoresis and it is based on the fact that charged molecules will migrate through a matrix upon application of an electrical field. The matrix for protein electrophoresis separation is polyacrylamide. Acrylamide is a potentially dangerous chemical compound that is mainly used to synthesize polyacrylamide which in turn is used in gel electrophoresis (SDS-PAGE). Polyacrylamide is a commonly used electrophoresis matrix for size separation of proteins and nucleic acids. The gel matrix is formed by free radical polymerization of Acrylamide and a crosslinker (Bis-acrylamide). *N, N'*-Methylenebisacrylamide is used as a reversible cross-linking reagent during the polymerization of polymers such as polyacrylamide. Acrylamide monomers polymerize into long chains by a reaction initiated by a free radical-generating system. These chains become cross-linked by *N, N'*-Methylenebisacrylamide and form a gel.

Application: The Acrylamide/Bis-acrylamide solution is used in protein and nucleic acid electrophoresis. The solutions required for preparation of a 10 ml resolving gel for Tris-Glycine-SDS-PAGE are tabulated as follows:

	8%	10%	12%
30% Acrylamide:Bis Solution (19:1)	2.7 ml	3.3 ml	4 ml
1.5 M Tris-SDS Buffer (pH 8.8)	2.5 ml	2.5 ml	2.5 ml
10% SDS	0.1 ml	0.1 ml	0.1 ml
Water	4.6 ml	4.0 ml	3.3 ml
10% Ammonium persulfate	100 ul	100 ul	100 ul
TEMED	6 ul	4 ul	4 ul

Composition: Acrylamide/Bis-acrylamide Solution 30% (19:1) solution is prepared from highly pure nuclease free electrophoresis grade acrylamide and bis-acrylamide in ultrapure water and finally filtered through a 0.2 µm filter.

Properties:

Appearance	: Colorless solution
Clarity	: Clear and free of particles
DNase & RNase	: None detected
Bioburden	: None detected
Suitability test	: This solution has been tested and is suitable for use in a variety of Molecular Biology applications.

Storage conditions: Acrylamide/Bis-acrylamide Solution 30% (19:1) has to be stored at 2 - 8 °C and should be protected from light.

Technical Assistance

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