

Acrylamide/Bis-acrylamide Solution 30% (36.5:1)

<u>Product Name</u>	<u>Product Code</u>	<u>Kit Packing</u>
Acrylamide/Bis-acrylamide Solution 30% (29:1)	ML038-100ML ML038-500ML	100 ml 500 ml

Introduction: Acrylamide/Bis-acrylamide Solution 30% (36.5:1) is based upon the total weight of both the acrylamide and bis-acrylamide which are mixed in 36.5:1 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 (36.5:1)	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% (36.5:1) 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% (36.5:1) has to be stored at 2 - 8 °C and should be protected from light.

Technical Assistance

At HiMedia we pride ourselves on the quality and availability of our technical support. For any kind of technical assistance, mail at mb@himedialabs.com.