Ver.250501

5X Tris-Glycine-SDS Gel Running Buffer

ML042 (500mL)

Introduction

10X Tris-Glycine-SDS Gel Running Buffer is the most commonly used as the electrophoresis buffer during the stacking and resolve process of sodium dodecyl sulfate - polyacrylamide gel electrophoresis (SDS-PAGE). This buffer is used as both anode and cathode buffer. This buffer is supplied as 5X concentrated stock solution and should be diluted to 1X with deionized water before usage.

Description

SDS-PAGE is a technique for separating proteins based on their ability to move within an electrical current, which is a function of the length of their polypeptide chains or of their molecular weight. The most widely used gel system for separating a broad range of proteins by SDS-PAGE is the Laemmli system (1970) which uses Tris-Glycine gels comprised of a stacking gel component and the resolving gel where varying acrylamide gel percentages are used to separate the proteins based on their mass weight. This classic system uses a discontinuous buffer system where the pH and ionic strength of the buffer used for running the gel (5X Tris-Glycine-SDS Gel Running Buffer, pH 8.3) is different from the buffers used in the stacking gel (pH 6.8) and resolving gel (pH 8.8).

Application

5X Tris-Glycine-SDS Gel Running Buffer is used as the electrophoresis buffer during SDS-PAGE for separation and analysis of protein samples.

Composition

10X Tris-Glycine-SDS Gel Running Buffer is composed of 0.12M Tris, 1.25M Glycine, 10% SDS and the pH is adjusted to 8.3.

Properties

Appearance : Colorless to faint yellow solution
Clarity : Clear and free of particles
DNase & RNase: None detected
pH : 8.2 - 8.4
Suitability test : This solution has been tested and is suitable for use in SDS-PAGE

Storage conditions

5X Tris-Glycine-SDS Gel Running Buffer has to be stored at 15-25°C. Under recommended condition, the reagent is stable for 12 months.
Note: The colour of the solution may turn faint yellow upon storage which will not affect its performance