

Instructions for 4× protein loading buffer (containing sulfhydryl reducing agent)

Item No. : P1016

Specification: 10mL/100mL

Storage: -20°C storage, it is recommended to separate frozen storage, avoid repeated freezing and thawing, valid for 1 year.

Product Description:

This product is suitable for SDS-PAGE(SDS denatured polyacrylamide gel electrophoresis) as a protein sample. Its main ingredients are SDS, sulfhydryl reducing agent, bromophenol blue, buffer salt solution and so on.

SDS can combine with protein to make protein-SDS complex with a large amount of negative charge, then the charge of the protein itself is completely covered by SDS, eliminating the difference in the charge of various proteins itself, SDS can also break the intramolecular and intermolecular hydrogen bond, destroy the secondary and tertiary structure of protein molecules. Sulfhydryl reducing agents can break the disulfide bond between cysteine residues, destroy the quaternary structure of proteins, and eliminate the difference between protein structures. Ultimately no charge and structurally different proteins (subunits), electrophoresis speed is only related to the size of its molecular weight. Bromophenol blue is used as an indicator during electrophoresis, giving an approximate indication of the end time of electrophoresis.

Instructions for use (for reference only) :

1. Please add 10μL loading buffer per 30μL protein sample (4 times dilution) to use. If the protein concentration is too high, it can be diluted with double steaming water.
2. After mixing, heat the 100°C water bath for 3-5 minutes to denature the egg whites.
3. After cooling to room temperature, centrifuge at 10,000-14000rpm for 2-5 minutes, take the supernatant directly onto the sample and electrophoresis can be done.

Notes:

1. When the concentration of polyacrylamide gel is 8%, the position of the bromophenol blue indicator strip is about 30kd; when the gel concentration is 12%, it is about 20kd; when the gel concentration is 15%, it is about 10kd. Please judge the electrophoretic time according to your target strip.
2. This reagent is toxic because it contains sulfhydryl reducing agents. For your safety and health, please wear a lab coat and disposable gloves.
3. Protein loading buffer contains bromophenol blue indicator, PH value is affected by storage temperature, in the cryogenic storage state, the solution may appear dark brown, does not affect the use of the product.

Related products:

<i>P1015</i>	<i>4×protein loading buffer (DTT included)</i>
<i>P1017</i>	<i>4×non-denatured protein loading buffer</i>
<i>P0012</i>	<i>10×ponceau</i>
<i>P1300</i>	<i>Coomassie Bright Blue Quick Stain Solution</i>
<i>P1200</i>	<i>SDS-PAGE Gel preparation kit</i>

Related literature:

- [1] Ren Zhang,Ruolun Wei,Wei Du,et al. Long noncoding RNA ENST00000413528 sponges microRNA-593-5p to modulate human glioma growth via polo-like kinase 1. CNS Neuroscience & Therapeutics. March 2019. (IF 3.394)
- [2] Zhihua Li,Yanyan Guo,Xiuhua Ren,et al. HDAC2,but not HDAC1,regulates Kv1.2 expression to mediate neuropathic pain in CCI rats. Neuroscience. June 2019; 408:339-348. (IF 3.244)

Note: For more information about this product, please refer to the Solebault website.