

Instructions for 2×protein loading buffer (containing sulfhydryl reducing agent)

Item No. : P1019

Specification: 10mL

Storage: -20°C storage, it is recommended to separate frozen storage, to avoid repeated freezing and thawing. Valid for 12 months.

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 protein itself charge is completely covered by SDS, eliminating the difference in the charge of various proteins, SDS can also break the intramolecular and intermolecular hydrogen bond, destroy the secondary and tertiary structure of protein molecules; Sulfhydryl reducing agent can break the disulfide bond between cysteine residues, destroy the quaternary structure of proteins, and eliminate the difference between protein structures. In the final protein (subunit) without charge and structural difference, the electrophoresis speed is only related to its molecular weight; Bromophenol blue is used as an indicator at the time of electrophoresis, indicating roughly the time at which electrophoresis will end.

Instructions for use (for informational purposes only) :

1. Please use the ratio of 10μL loading buffer per 10μL protein sample (2 times dilution). If the protein concentration is too high, dilute the sample with double steaming water.
2. After mixing, heat the 100°C water bath for 3-5 minutes to denature the protein.
3. After cooling to room temperature, centrifuge at 10,000-14000rpm for 2-5 minutes, take the supernatant directly onto the sample for electrophoresis.

Points for attention:

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 glue concentration is 15%, it is about 10kd. Please judge the electrophoresis 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. The protein loading buffer contains bromophenol blue indicator, and the PH value is affected by the storage temperature. In the cryogenic storage state, the solution may appear dark brown, which 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 dyeing solution</i>
<i>P1300</i>	<i>Coomassie Brilliant Blue Quick Dyeing Solution</i>
<i>P1200</i>	<i>SDS-PAGE Gel preparation kit</i>

*PR1700 High molecular weight protein MARKER***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.