



Biomol® Starch Hydrolysed, for Gel-Electrophoresis

Catalog No: 56511
Lot No: XXXXX
Cas No: 9005-84-9
Supplied as: solid
Stability: stable at room temperature

Tests	Specifications
Appearance:	white powder
Solubility (2%, H₂O, 90°C):	clear
Water:	≤20%
Ash content:	≤1%

Handling

A) Boiling Method:

To prepare a gel, a weighed amount of starch is suspended in the requisite volume of buffer solution. The dry hydrolysed starch is best added to half the volume of buffer in a suitable conical flask and immediately mixed. The remainder of the buffer can then be used to wash traces of powder from the weighing vessel into the flask. Continual mixing by swirling is carried out as the suspension is heated over a naked flame. As the temperature rises the suspension will turn semi-solid. Further heating is carried out with continued swirling until the semi-solid mass becomes a viscous liquid. The suspension should not be heated unless it is being mixed and the heating should not be stopped until the mixture becomes liquid.

Cook the starch until the solution is thin enough to pour (If you get fragile slices later on, the gel was probably undercooked. We recommend the solution be about 80 °C or higher prior to degassing).

Degassing is then conducted by applying a negative pressure with a vacuum pump until the contents of the flask boil vigorously. The boiling time should be kept short so that loss of water will not appreciably affect the composition of the gels. Standard conditions are essential if the characteristics of the gels are to be reproducible.

The liquid is then poured into suitable trays, covered and allowed to set for a minimum of one hour at room temperature (Recommendation: Let the gel sit at RT over night), then refrigerated for no more than one hour prior to loading. Please note that excessive refrigeration (more than a couple of hours) will cause the amylose to crystallize and as a result the gels become more brittle over time.

B) Microwave Method:

To make a 12.5% gel use 2 Erlenmeyer 1 L flasks. Divide 500 ml buffer equally into the flasks. Place one flask in the microwave to bring the buffer to a boil. Suspend 62.5 g starch in the buffer of the other flask. When the buffer in the microwave comes to a boil add to the suspended starch and shake vigorously until uniformly mixed. Then microwave on high (Stopping to shake a couple of times) until thin enough to pour (temperature of at least 80 °C. Degas and pour into mold and allow to set as described above.

Usage

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