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Question Asked a year ago

**Bhumi Bhatt**

1.81 · Sardar Patel University

How to make starch solution for amylase assay?

Starch is substrate for amylase enzyme and used 1% starch as substrate of enzyme assay. Starch is insoluble in water, If heat the solution or adding of starch in boiling water can be used to dissolve starch. Heating can break the bonds and/or make bonds weak,

To get true results for enzyme activity, how should starch to be prepared?

Starch

Amylase

Enzyme Activity

Allostery

Share

1 Recommendation

All Answers (5)

**Greg Cote**

a year ago

There are two different things to consider here. If you are interested in the activity of your enzyme on raw starch, that is, starch in the granular form, then you will have to do your assays on a suspension of raw starch granules in buffered water. Heating them will gelatinize them, and you will no longer have raw starch granules. If, however, you are only interested in the activity of your enzyme on solubilized starch, then you are perfectly OK in heating the starch to dissolve it. In that case, you should use so-called "soluble starch", which is not in the granular form. It can be dissolved by making a thin paste in room-temperature water and adding very hot water (near boiling) with stirring until it dissolves. This will not cause significant hydrolysis of the glycosidic linkages. Most amylase assays are done on solubilized starch. Just be sure that you use a soluble starch that is low in reducing sugars; otherwise, you will get very high background values.

1 Recommendation

**Mouna Sahnoun**

a year ago

Centre of Biotechnology of Sfax (CBS)

starch concentration is 1% dissolved by heat in microwave

**Samsher Singh**

a year ago

Indian Institute of Integrative Medicine

I have done it by heating the soluble starch on hot plate and worked well. Most of the researchers do that. For application you may try raw or other types of starches.

**Bhumi Bhatt**

a year ago

Sardar Patel University

Thank you all, Actually I am using soluble starch for enzyme assay and used heating to dissolve, if not then enzyme not giving activity and by applying heat to dissolve it makes huge difference so I was bit confusing about that what should be followed

**Ahmad Syauqi**

a year ago

Universitas Islam Malang (Islamic University of Malang) Indonesia

The amylase work to substrate need water and it available if starch in gel form.



Can you help by adding an answer?

Answer

Enter your answer

Ad



Sino Biological Inc.

Biotinylated proteins

Strict quality control, Most Fc receptor, Car-T relevant proteins, Hot Mab Drug Targets.

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**How do I prepare DNS reagents?**

Hi. I am currently working on alpha amylase inhibition assay using DNS reagent. As the first step, I am preparing the DNS reagent and testing it...

24 answers added

**Could anyone help me with alpha amylase assay by DNS?**

Currently I am working with alpha amylase assay using DNS method but I have a problem with the colour which is not changing even I used high...

10 answers added

**Can any one share protocol for in-vitro alpha amylase assay?**

I am doing Alpha amylase assay, If some can share there protocol which is compatible with my reagents. The enzyme I'm using is Porcine alpha...

4 answers added

**How does Dinitrosalicylic Acid stops the enzyme-substrate reaction, in enzyme assay?**

Normally it is said that dns is added to stop the reaction in enzyme assay, what happens to the enzyme.

6 answers added

**Amylase inhibition assay positive control ?**

Hello, I am currently doing amylase inhibition assay. The positive control absorbance(540 nm) reading wasn't as expected. Can anyone please...

8 answers added

**Solubility of Starch in Water.**

Do you know any approach to dissolve starch in water?

20 answers added

Add your answer



Please, how to determine the activity of the enzyme (alpha amylase) ?

Micro porous starch was prepared from potato starch by alpha amylase catalysis combined with ultrasonic treatment.

Twenty milliliters of starch...

5 answers added



How to calculate enzyme activity from absorbance?

I have absorbance (at 420nm) and reaction time how to find the enzyme activity.

13 answers added



How to prepare 40 mM hydrogen peroxide from 30% H2O2 solution ?

For H2o2 radical scavenging assay. How to prepare 40 mM hydrogen peroxide from 30% H2O2 solution ? Thanks in advance.

53 answers added



Negative number in alpha-amylase inhibition assay?

I did the amylase inhibition assay and confirm the color of final mixture was good. (This experiment was first to me and in my lab.) So, i...

5 answers added

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