

Manual for Yam Tuber Skin Sample Collection



This step-by-step instruction enables tuber skin sample collection for quality DNA extraction with Hara's SDS method.

Step 1: Preparation of sample bag

Prepare 30 g of dried silica gel in the zipper type plastic bag.

Tips:

For this purpose, it is recommended to mix 1) non-indicating. (white) powder silica gel and 2) color indicating silica gel (e.g. 5:1 ratio). Color indicating silica gel changes the color depending on the moisture content (e.g. Orange (dry) to Green (moist), or Blue (dry) to Pink. (moist), etc.). Powder silica gel provide more surface area against the tissue sample to lead quicker drying, while color indicating silica gel ensures the desiccation of silica gel.



Sample bag with mixed silica gel

Step 2: Preparation of tuber skin sample

Take thin-sliced tuber skin from the tuber of target material (after washing to remove soils, and dried). Approximately 3 pieces of 1cm x 2cm of Tuber-skin (2-3g F.W.) is enough for several DNA extraction attempt.



Prepared tuber skin samples

Tips:

Since only brownish skin part is required for the purpose of DNA extraction, it is recommended to remove the whitish tuber fresh part. It is not necessarily square shape.

Step 3: Drying in the silica gel

Insert the prepared thin-sliced tuber skin sample(s) to the sample bag with dried silica gel. Once the sample(s) was inserted, please close the bag carefully by zip and shake the sample bag gently to mix the sample and silica gel. Dried silica gel immediate start desiccating the sample inside and maintain DNA stabilize.

Step 4: Labeling and storing

Label the sample bag with name/ID number of the sample. The sample can be stored sometime in room temperature, as long as the silica gel is desiccated.

Quick link:

Yam Variety Identification Toolkit



https://www.jircas.go.jp/en/database/yam_toolkit

Support movie manual for tuber skin



<https://youtu.be/iEjBpm4c45c>