



EASY AND CHEAP METHOD OF PRESERVATION OF FUNGAL STRAINS

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Introduction. In recent years mycology has reached a boom that has generated a number of advances in areas such as agriculture, food, pharmaceuticals (1). To facilitate the study of these fungi, collections have been created to preserve them. This work demands a persistent vigilance and attention by the difficulty that represent (2). To maintain and preserve the viability and characteristics of fungi related, it is necessary to develop techniques to ensure optimal preservation of the physiological and morphological characteristics of each isolation of these microorganisms.

Reactivation of 27 fungal strains (DIA-UAdeC collection) was carried out, in order to assess the conditions of the strains and organize DIA-UAdeC's fungi collection. The goal is to have more control over the possible use of each strain and also know to have been evaluated in the department, their characteristics and culture conditions.

Methods. 27 different strains of fungi were inoculated on potato dextrose agar, and then were incubated at 30 °C during 5-7 days. Morphology was observed and described through stereoscopy. Images were taken at each strains to be attached to the respective technical sheet. When each strain reached optimal growth, explants were removed and placed in sterile distilled water. The material was labeled and stored at room temperature.

Results. All strains (Table 1) growth had the capacity to grow on PDA and was possible to recovery explants (Fig. 1) of each strain. Technical sheet were developed to know better the microbial sources into laboratory (Fig. 2).



Fig.1 Conserved explants of each strains in distilled water.

Table 1. Strains reactivated and preserved.

<i>Aspergillus fumigatus</i> GS	<i>Colletotrichum</i>
<i>Aspergillus niger</i> GH1	<i>Ceriporiopsis subvermispora</i>
<i>Aspergillus niger</i> PSH	<i>Penicillium pinophilum</i> EH2
<i>Aspergillus rugulosus</i> NH4	<i>Penicillium pinophilum</i> EH3
<i>Aspergillus ustus</i> PSS	<i>Phanerochaete</i>
<i>Aspergillus</i> FP390	<i>Pleurotus ostreatus</i>
<i>Aspergillus</i> HC2	<i>Sclerotinia sclerotiorum</i>
<i>Aspergillus</i> sp. H1V	<i>Penicillium</i> sp.
<i>Aspergillus</i> sp. H3BV	<i>Mucor</i> sp.
<i>Aspergillus</i> HS1	2CHM
<i>Aspergillus</i> HT2	H1N
<i>Aspergillus</i> HT3	HPN
<i>Blakeslea trispora</i>	MRRJ2
<i>Botrytis cinerea</i>	

Cepa	Micoteca Departamento de Investigación en Alimentos. FCQ-UAdeC
Mucor sp	Identificación macroscópica en PDA 
Clasificación	Subdivisión: Zygomycota Clase: Zygomycetes Orden: Mucorales Familia: Mucoraceae Género: Mucor Especie:
Morfología	Colonias algodonosas de color blanco a beige se tornan grises con el tiempo. Crecimiento rápido a una temperatura de 30 °C, esporulado grisáceo, miscela abundante y con crecimiento radial.
Condiciones de cultivo	Se encuentra comúnmente en el suelo, plantas, frutas y vegetales en descomposición (Dr fungus, 2006)
Aplicación industrial	Lipasas, proteasas
Identificación bioquímica	No Aplica
Patógeno	Son incapaces de afectar a los seres humanos debido a su incapacidad de crecer en ambientes cálidos a 37 °C.
Nivel de biotecnología	Nivel de contingencia 2
Mantenimiento	Agua destilada estéril (Bueno, L, Gallardo R. 1996; Panzo M, Revilákina V, 2005) Azúcares minerales (Panzo M, Revilákina V, 2005)

Fig 2. Technical sheet of a fungi strain belonging of fungi collection.

Conclusions. Most strains are capable of growing effectively in PDA at 30 °C after that they were kept in sterile distilled water, thus proving the effectiveness of the method of preservation in sterile distilled water. The method was adopted in the laboratory. Technical sheets provided more detail about fungi like type of growth, color mycelium, etc.

References.

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