Lutispora saccharofermentans El Houari et al.

TSD-268™

Description

Lutispora saccharofermentans strain m25 is a bacterial type strain isolated in 2021 from leachate at the Hafod Quarry Landfill. This strain grows best in oxygen-free nitrogen at 35°C.

Strain designation: m25
Deposited As: *Lutispora* sp.
Type strain: Yes
Type strain description: This culture provided to the ATCC type strain depository is neither produced nor characterized by ATCC. No technical information is available on this material. Refer to depositor for technical information on this strain.
Technical information: ATCC Product Experience does not have technical information on type strain deposits that are not fully characterized. Additional information can be found in the depositor's publication.

Storage Conditions

Product format: Frozen
Storage conditions: -80°C or colder

Intended Use

This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use.

BSL 1

ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.atcc.org.

Growth Conditions

Temperature: 35°C

Handling Procedures

Depositor-recommended growth conditions:

Grow in recommended media (preparation information listed below), at 35°C, in oxygen free nitrogen, and incubate for 5 to 7 days.

The basal medium used consisted of (1 Litter of distilled water): 0.5 g K_2HPO_4, 0.5 g KH_2PO_4, 0.5 g NH_4Cl, 0.4 g KCl, 0.05 g $CaCl_2$. $2H_2O$, 0.3 g $MgCl_2$. $6H_2O$, 0.4 g NaCl, 0.25 g HCl-Cysteine, 1 ml trace element mineral solution (composition below) and 1 ml resazurin 0.1% (w/v). 30g of Fastidious Anaerobic Broth and 2g of Tryptone were added to the medium and the pH is adjusted to 6.5.
The medium then was heated to boiling and until the medium turn colorless. The medium is t then cooled at room temperature under a stream of O_2-free nitrogen. The medium is finally sterilized by autoclaving for 20 min at 121 ℃.

After autoclaving, solutions of $NaHCO_3$ (10%) and $Na_2S.9H_2O$ (2%; pH adjusted) were autoclaved separately and added to the medium (20 mL each) at room temperature. The medium was also supplemented with 1 ml of a filter sterilized (0.22 µm) vitamin solution (composition below). The final pH after adding solutions should be to pH 7.0±0.1.

Element mineral solution composition (Quantity for 1000 ml)
HCl (37%): 6.7 ml
$FeCl_2$. $4H_2O$*: 1500 mg
H_3BO_3 3: 6 mg
$MnCl_2$. 4H2O: 100 mg
$CoCl_2$. 6H2O: 190 mg
$ZnCl_2$: 70 mg
$NiCl_2$. 6H2O: 24 mg
$CuCl_2$. 2H2O: 2 mg
Na_2MoO_4: 36 mg

Vitamin solution composition (Quantity for 100 ml)
Para-amino-benzoic acid: 25 mg
D-biotin: 10 mg
Cyanocobalamin: 0.5 mg
Thiamine-HCl: 25 mg
Riboflavin: 25 mg
Pyridoxal-HCl: 50 mg
DL-pantothenate de calcium: 25 mg

Nicotinic acid (niacine): 25 mg
Folic acid: 10 mg
Lipoïc acid: 25 mg

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: *Lutispora saccharofermentans* El Houari et al. (ATCC TSD-268)

References

References and other information relating to this material are available at www.atcc.org.

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