

# Trypticase Soy Agar (TSA) with 2% NaCl agar

## Intended Use

Trypticase Soy Agar (TSA) supplemented with 2% NaCl is commonly used for the isolation and cultivation of *Vibrio* species, particularly *Vibrio parahaemolyticus*. The addition of 2% sodium chloride (NaCl) creates a saline environment that supports the growth of halophilic (salt-loving) vibrios while suppressing many non-halophilic organisms.

It is often used for:

- Purification and subculturing of suspected *Vibrio* colonies from selective media.
- Enrichment or growth of *V. parahaemolyticus* prior to serological or biochemical identification.

## Principle

Tryptone and soy peptone serve as sources of carbon, nitrogen, vitamins, and essential growth factors. The elevated concentration of sodium chloride suppresses the growth of non-*Vibrio* organisms while allowing *Vibrio parahaemolyticus* to thrive. Bacteriological agar functions as the solidifying agent in the medium.

## Storage

Recommended storage conditions: 2 to 25 °C. Store in cool dry place

Recommended shipping conditions: 2 to 25 °C.

## Production Standard

The formulation is prepared according to the recommendations of the current European, United States, and China Pharmacopoeia.

## Precautions

1. The product may secrete water when exposed to temperature changes between low and room temperature, which is normal. Allow it to reach room temperature before use and, if possible, pre-dry it in a sterile drying oven.
2. Handle the plates with sterile gloves to prevent contamination during use.
3. Store the plates in a cool, dry place away from direct sunlight to maintain their integrity.
4. Avoid opening the plates until they are ready to be used in the sampling area to prevent airborne contamination.
5. Ensure the plates are used within their expiration date to guarantee accurate results.
6. Dispose of used plates according to biohazard waste protocols to prevent contamination and ensure safety.

## Quality Control

According to ISO 11133:

Incubation conditions: Productivity qualitative: *Vibrio* (37±1 °C / 24±2 h)

Inoculation conditions: (10<sup>3</sup>-10<sup>6</sup> CFU).

Test Strains	Expected Results
<i>Vibrio parahaemolyticus</i> ATCC17802	Good growth, PR ≥ 0.7
<i>Vibrio vulnificus</i> ATCC27562	Good growth, PR ≥ 0.7

## Procedure

1. Spread the plates by streaking methodology or by spiral method.
2. Incubate the plates upside down and under aerobic conditions at 36 ± 1 °C for 18-24h.
3. After incubation, enumerate all the colonies that have appeared onto the surface of the agar.

## Product Content

Product Content	Cat No.	Size
Trypticase Soy Agar (TSA) with 2% NaCl agar	111014	10 plates/bag; 200 plates/case

## Composition

Tryptone (Pancreatic digest of casein)	15.0 g
Soy peptone	5.0 g
Sodium chloride	20.0 g
Dipotassium hydrogen phosphate	2.5 g
Glucose	2.5 g
Bacteriological agar	15.0 g
Water	1000ml
Final pH (at 25 °C)	7.3 ± 0.2

## Shelf Life

Shelf life: 6 months from date of manufacture

## Packaging

90mm x 10 plates per bag; 200 plates/case

Each plate filled with 20mL ± 2mL

## Disposal

Please adhere to the respective regulations for the disposal of used culture medium (e.g., autoclave for 30 minutes at 121 °C)