

## TRIPLE SUGAR IRON (TSI) AGAR, PH EUR

A differential medium for the differentiation of bacteria on the basis of carbohydrate fermentation and hydrogen sulphite production according to PH EUR (Agar Medium M) and several ISO standards.

<b>Dehydrated media</b>	
Code number:	500 g: TSI20500, 5 kg: TSI25000
Colour:	Yellowish
Appearance:	Homogeneous hygroscopic powder
pH before autoclaving (25 °C):	7,2 – 7,6

**Direction:** Suspend 66 g in one litre of distilled water and heat with frequent agitation until the medium boils well. Dispense into test tubes and sterilise by autoclaving at 121 °C for 15 minutes. Allow to cool in slanted position to form slant with deep butt.

<b>Prepared media</b>	
Bottled media:	100 ml: TSI30100 500 ml: TSI30500
Tubed media:	100 x 12 mm: TSI40003 (3 ml, slant with deep butt)
Colour:	Yellow onion
pH (25 °C):	7,3 – 7,5

**Direction:** Dispense the melted bottled media aseptically into sterile test tubes. Allow to cool in slanted position to form slant with deep butt. Media in tubes are ready to use.

### FORMULA in g/l

Peptones	20,000
Beef extract	3,000
Yeast extract	3,000
Lactose monohydrate	10,000
Sucrose	10,000
Glucose	1,000
Sodium chloride	5,000
Sodium thiosulphate	0,300
Ferric citrate	0,300
Phenol red	0,024
Agar	13,400

**Note:** The typical formula can be adjusted to obtain optimal performance.

**Storage conditions:** Store the dehydrated media tightly closed in a dry place at room temperature. Store the bottled media protected from light at room temperature. Store the tubed media protected from light at 2-8 °C. Use before the expiry date on the label.

#### Quality control:

Test strains	Incubation temp: 37 °C	Reactions		Incubation time: 24 h	
		Slant	Butt	Gas	H <sub>2</sub> S
<i>Escherichia coli</i> ATCC 25922		yellow	yellow	+	-
<i>Salmonella typhimurium</i> ATCC 14028		red	yellow	+	+
<i>Pseudomonas aeruginosa</i> ATCC 27853		red	red	-	-

**References:** European Pharmacopoeia  
ISO 6579-1:2017, ISO 19250:2010, ISO 21567

**In vitro diagnostic – for professional use only!**