

T.S.A. BLOOD/ CHROMATIC DETECTION

Media for urinary bacterial count and identification.

T.S.A. BLOOD TYPICAL FORMULA (g/L)		CHROMATIC DETECTION TYPICAL FORMULA (g/ L)	
Tryptone	15.0	Peptone	12.0
Soytone	5.0	Sodium Chloride	4.0
Sodium Chloride	5.0	Chromogenic mix	1.3
Sheep Blood defibrinated	50.0 mL	Agar	15.0
Agar	15.0	Final pH 7.2 ± 0.2	
Final pH 7.3 ± 0.2			

DESCRIPTION

T. S. A. BLOOD (TRYPTIC SOY AGAR- Sheep blood 5%) is a medium for fastidious bacteria isolation.

CHROMATIC DETECTION is a chromogenic medium for urinary bacterial count and identification.

PRINCIPLE

Tryptone, Soytone and peptone provide nitrogen, carbon, sulphur and other essential growth factors. Sodium chloride maintains the osmotic balance of the medium. Agar is the solidifying agent.

In **T.S.A. BLOOD** sheep blood defibrinated supplies additional growth factors for fastidious microorganisms and allows to evidence the haemolytic reactions.

In **CHROMATIC DETECTION** the chromogenic mix allows the identification of microorganisms on the basis of the colour and the morphology of the colonies.

TECHNIQUE

Inoculate plates streaking the sample to test on the agar surface using a sterile loop. Incubate at 36±1°C for 24-48 hours .

INTERPRETATION OF RESULTS

On **T.S.A. BLOOD** observe for growth and for haemolytic reactions. Four different kinds of haemolysis can be distinguished:

1. alpha-haemolysis: haemoglobin is reduced to methaemoglobin in the medium surrounding the colony and this causes a greenish decolouring of the medium;
2. beta-haemolysis: it is the lysis of erythrocytes which is evident in the bright zone around the colony;
3. gamma-haemolysis: any destruction of erythrocytes or any change in the medium does not occur;
4. alpha ' -haemolysis: a little zone of complete haemolysis surrounded by a partial lysis area is evident.

On **CHROMATIC DETECTION** the results must be interpreted as described in the following table:

Microorganism		Growth	Color	Test confirmation
<i>Escherichia coli</i>	ATCC 25922	good	Red	Indole Test
<i>Klebsiella pneumoniae</i>	ATCC 13883	good	Gray-blue	
<i>Proteus mirabilis</i>	ATCC 25933	good	Brown	TDA Test
<i>Pseudomonas aeruginosa</i>	ATCC 27853	good	Shiny-cream	
<i>Staphylococcus aureus</i>	ATCC 25923	good	Opaque-gold	
<i>Enterococcus faecalis</i>	ATCC 19433	good	Dark blue	

STORAGE

2-8°C away from light, until the expiry date on the label or until signs of deterioration or contamination are evident.

WARNING and PRECAUTIONS

The product is not classified as hazardous by current legislation and does not contain harmful substances in concentrations of ≥1%. The product is designed for *In vitro* diagnostic use and must be used only by properly trained operators.

DISPOSAL of WASTE

Disposal of waste must be carried out according to national and local regulations in force.

REFERENCES

- Swanson, K.J., F.F. Busta, E.H. Peterson, and M.G. Johnson. (1992). *Colony Count Methods*, p. 75-95.
- The United States Pharmacopeia. (1995). *Microbiological tests*, p. 1681-1686. United States Pharmacopeial Convention, Rockville, MD.
- ISO 9308-1:2000 Water quality - Detection and enumeration of *Escherichia coli* and coliform bacteria - Part 1: Membrane filtration method.
- J. Merlino, S. Siarakas, G.J. Robertson, G.R. Funnel, T. Gottlieb, and R. Bradbury. *Evaluation of Colorex Orientation for differentiation and presumptive identification of gram-negative bacilli and Enterococcus species*. J.Clin.Microbiol.1996,34:1788-1793.
- Z. Samra, M. Heifetz, J. Talmor, e. Bain and J. Bahar. *Evaluation of use of a new chromogenic Agar in detection of urinary tract pathogens*. J.Clin.Microbiol.1998,36:990-994.



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PRODUCT SPECIFICATIONS

NAME

T.S.A. BLOOD/ CHROMATIC DETECTION

PRESENTATION

Ready plates (90 mm) with two sectors.

STORAGE

2-8 °C

PACKAGE

Code	Content	Packaging
18008	20 plates	<ul style="list-style-type: none"> 5 plates in thermically soldered film 4 x 5 plates in cardboard box
18008*	100 plates	<ul style="list-style-type: none"> 5 plates in thermically soldered film 2 x 5 plates in plastic bag 10 piles (2x5 plates) in cardboard box

USE

T. S. A. BLOOD (TRYPTIC SOY AGAR- Sheep blood 5%) is a medium for fastidious bacteria isolation.

CHROMATIC DETECTION is a chromogenic medium for urinary bacterial count and identification.

TECHNIQUE

Refer to technical sheet of the product.

APPEARANCE OF THE MEDIUM

T. S. A. BLOOD is a cherry- red, opaque medium.

CHROMATIC DETECTION is a very light amber medium, slightly opalescent.

SHELF LIFE

3 months

QUALITY CONTROL








- Control of general characteristics, label and print
- Sterility control
 - 7 days at $25 \pm 1^\circ\text{C}$, in aerobiosis
 - 7 days at $36 \pm 1^\circ\text{C}$, in aerobiosis

- Microbiological control
 - Inoculum for productivity: 10-100 UFC/ml
 - Inoculum for selectivity: 10^4 - 10^5 UFC/ml
 - Inoculum for specificity: $\leq 10^4$ UFC/ml

Incubation conditions: $36 \pm 1^\circ\text{C}$ for 18-24 hours

Microorganisms		Growth on T. S. A. BLOOD	Growth on CHROMATIC DETECTION
<i>Escherichia coli</i>	ATCC 25922	Good	Good/ Red colonies
<i>Klebsiella pneumoniae</i>	ATCC 13883	Good	Good/ Gray-blue colonies
<i>Proteus mirabilis</i>	ATCC 25933	Good	Good/ Brown colonies
<i>Pseudomonas aeruginosa</i>	ATCC 27853	Good	Good/ Shiny-cream colonies
<i>Enterococcus faecalis</i>	ATCC 19433	Good	Good/ Dark blue colonies
<i>Staphylococcus aureus</i>	ATCC 25923	Good/ Beta haemolysis	Good/ Opaque-gold colonies
<i>Streptococcus pneumoniae</i>	ATCC 6305	Good/ Alpha haemolysis	
<i>Streptococcus pyogenes</i>	ATCC 19615	Good/ Beta haemolysis	

TABLE OF SYMBOLS

IVD In Vitro Diagnostic Medical Device	 Do not reuse	 Manufacturer	 Contains sufficient for <n> tests	 Temperature limitation
REF Catalogue number	 Fragile, handle with care	 Use by	 Caution, consult accompanying documents	LOT Batch code



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