

# PRODUCT INFORMATION

Product Type: PETRI DISHES 90mm

## Cat No. PD214 - GROUP A STREPTOCOCCI AGAR (GASA)

### Intended Use:

Highly selective agar medium for the isolation of *Streptococcus pyogenes* (Group A).

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### Principle and Uses:

Highly selective agar recommended for the primary isolation of group A streptococci from throat cultures and other heavily contaminated specimens in which the presence of *S. pyogenes* is suspected. Most other *streptococci*, *Neisseria*, *staphylococci* and gram-negative bacteria are inhibited. A combination of different antimicrobial agents incorporated to an improved Columbia Agar Base with 5% sheep blood, achieves an important reduction in the growth of the competitive flora, especially *Streptococcus viridans*, resulting in increased recovery of *group A streptococci*.

The blood's addition detects haemolytic patterns, enhanced on this improved base, and the use of a bacitracin disc (0.04 units) aids in the presumptive identification of *S. pyogenes*. Incubation under anaerobic conditions will improve the selectivity of the agar and the haemolytic reactions of the target microorganisms.

### Ingredient Function

**Group A Streptococci Agar (GASA)** is a nutrient-rich medium supporting the growth of a wide range of fastidious organisms, especially when enriched with sheep blood. The base includes special peptones, starch, and sodium chloride, providing nitrogen, carbon, vitamins, and maintaining osmotic balance

**Sheep Blood (5%)** supplies additional nutrients and enables the detection of hemolytic reactions (alpha, beta, gamma) by providing intact red blood cells.

**Antibiotics (Colistin, Sulfamethoxazole, Oxolinic Acid, Trimethoprim)** create a highly selective environment by inhibiting a broad spectrum of Gram-negative and Gram-positive bacteria. This restricts growth to only those organisms resistant to this combination, allowing for targeted isolation from heavily contaminated specimens.

**Coliracin** (Colistin) is a Polymyxin antibiotic; inhibits most Gram-negative bacteria (especially Enterobacteriaceae).

**Sulfamethoxazole** is a Sulfonamide antibiotic; inhibits folic acid synthesis, suppressing a wide range of bacteria.

**Oxolinic Acid** Quinolone antibiotic; inhibits DNA gyrase, suppressing Gram-negative and some Gram-positive bacteria.

**Trimethoprim** Inhibits dihydrofolate reductase, potentiates sulfamethoxazole, broadening spectrum.

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## Composition

Special peptone - 23 g/L  
Soluble starch - 1 g/L  
Sodium chloride - 5 g/L  
Agar - 10 g/L  
Coliracin - 120000 IU/L  
Sulfamethoxazole - 14.71 mg/L  
Oxolinic Acid - 5 mg/L  
Trimethoprim - 0.71 mg/L  
Sheep Blood – 5%

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**Storage:** 2-8°C

**Appearance:** cherry-red, opaque **pH Range:** 7.1 - 7.5

**Package contents:** 10 plates in a package

**Exp. Date:** Printed on label and on the item.

**Required materials not supplied:** Laboratory equipment as required.

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**Warning and Precautions** - For professional use only. Follow good microbiological lab practices while handling specimens and culture. Do not use Petri dishes if they show evidence of microbial contamination, discoloration, drying, cracking, or other signs of deterioration. Avoid freezing and overheating. The Petri Dishes may be used / inoculated up to the expiration date and incubated for the recommended incubation times. After use and prior to discarding, specimen containers and all contaminated material, including the used culture media and contaminated culture containers, must be sterilized or incinerated by validated procedures. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.

If excessive moisture is observed, invert the bottom over an off-set lid and allow to air dry in order to prevent formation of a seal between the top and bottom of the plate during incubation. Storage Instructions: On receipt, store plates in the dark at 2–8 °C. Avoid freezing and overheating. Do not open until ready to use.

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## Waste Disposal

After interpretation all plates should be destroyed by standard incineration methods.

## Performance Testing Results

GPT: Inoculum 10-100 cfu

Inhibitory properties: inoculum 10000 cfu

Test	ATCC	Incubation Temp. (°C)	Incubation Cond	Reaction 1	
<i>Streptococcus pyogenes group A</i>	19615	33-37 °C	Anaerobic, 24 hours	Growth	Beta hemolytic reaction. sensitive to Bacitracin. zone of inhibition > 14 mm
<i>Streptococcus mitis</i>	6249	33-37 °C	Anaerobic, 24 hours	Partially inhibited	Pinpoint green colonies
<i>Streptococcus dysgalactiae</i>	27957	33-37 °C	Anaerobic, 24 hours	Inhibited	
<i>Escherichia coli</i>	25922	33-37 °C	Anaerobic, 24 hours	Partially inhibited	
<i>Proteus mirabilis</i>	4630	33-37 °C	Anaerobic, 24 hours	Partially inhibited	
<i>Staphylococcus aureus</i>	25923	33-37 °C	Anaerobic, 24 hours	Inhibited	
<i>Pseudomonas aeruginosa</i>	27853	33-37 °C	Anaerobic, 24 hours	Inhibited	