G0289 Gelatin Iron Agar

Gelatin Iron Medium is used for detecting gelatine liquefaction and hydrogen sulfide production.

Composition:

Ingredients	Grams/Litre
Peptic Digest of Animal Tissue	25.0
Meat Extract	7.5
Sodium Chloride	5.0
Gelatin	120.0
Ferrous Chloride	0.5
Agar	1.0
Final pH 7.0 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder in a dry place in tightly-sealed containers at 2-25°C.

Appearance: Yellow colored homogeneous, free flowing powder.
Gelling: Semisolid
Color and Clarity: Light yellow colored, clear to slightly opalescent gel forms in tubes as butts.

Directions:
Suspend 15.9 g of Gelatin Iron Medium in 100 ml of distilled water. Heat to boiling to dissolve the medium completely. Dispense in test tubes as desired. Sterilize by autoclaving at 15 lbs. (121°C) for 15 minutes. Cool the tubed medium in an upright position.

Principle and Interpretation:
The medium consists of nutrients such as peptic digest of animal tissue, meat extract and gelatin which provide nitrogen compounds and carbon compounds for the growing of organisms. Gelatin acts as a solidifying agent and is the substrate for the organisms producing the gelatinase enzyme. Ferrous chloride aids in the detection of hydrogen sulfide indicated by a black precipitate. Gelatin is usually liquefied by *Clostridium perfringens* within 24-48 hours. *Escherichia coli* grow well on this medium but show neither gelatinase activity or H_2S production.

Cultural characteristics after 24-48 hours at 35-37°C.

Organisms (ATCC)	Growth	Gelatinase reaction	H_2S production
Clostridium perfringens (12924)	+++	+	+
Escherichia coli (25922)	+++	-	-
Bacillus subtilis (6633)	+++	+	-

References:

1. Hauschild, A.H.W., et al., (1974). Appl. Microbiol. 27, 78.
2. American Type Culture Collection, Manassas, Va. U.S.A

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.