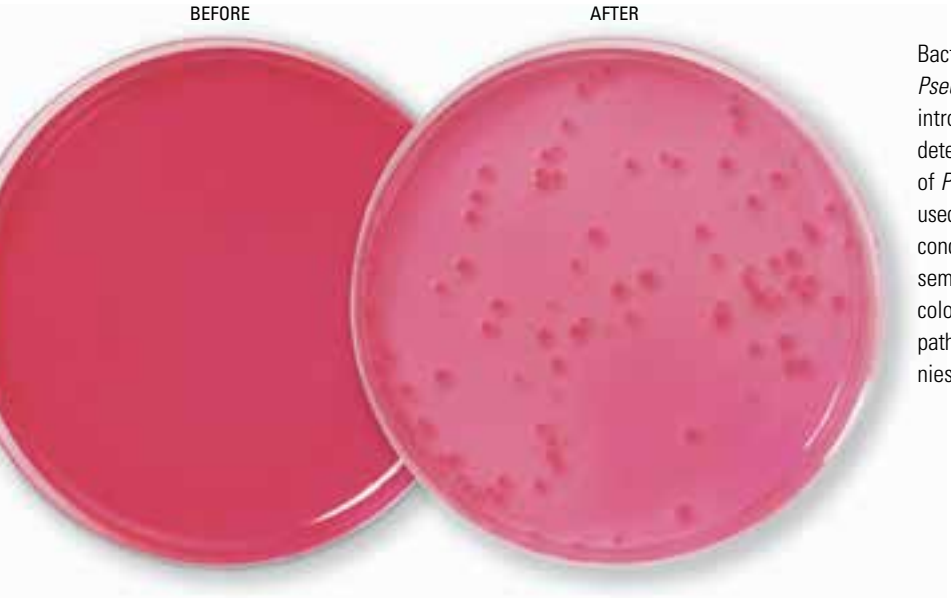
K5129
KBZ Medium

Crop: **Tomato**

Disease: **Bacterial speck**

Pathogen: ***Pseudomonas syringae* pv. *tomato***



Bacterial speck of tomatoes is caused by the bacterium *Pseudomonas syringae* pv. *tomato (Pst).* The bacterium can be introduced by the use of *Pst*-contaminated seeds. Therefore, detection of *Pst* in seeds of tomato is common. For the detection of *Pst,* seeds are first soaked in buffer. Then a stomacher is used for the release of bacteria from the seeds. The bacteria are concentrated by centrifugation. Then dilution plating on two semi-selectice media KBZ and KBBC is performed. Suspected colonies are transferred to KB and finally identified by PCR or a pathogenicity assay. *Pst* forms small, flat and pink-colored colonies on KBZ after ca. 5 days.

COMPOSITION OF MEDIA K5129: KBZ MEDIUM

COMPOUND	GRAM/LITER
Agar	15.0
Di-potassium hydrogen phosphate (K_2HPO_4)	1.5
Magnesium sulphate anhydrous ($MgSO_4$ anhydrous)	0.73
Proteose	20.0

METHOD

- Dissolve 37.2 grams of ingredients in distilled water, adjust volume to 960 ml and adjust pH to 7.5.
- Prepare 30 ml of 50 % glycerol.
- Dissolve 1.5 g boric acid in 10 ml distilled water.
- Autoclave the solutions separately (121 °C, 15 psi, 15 minutes).
- Prepare sterile solutions and add the following amounts per liter medium:
  160 mg cephalexin monohydrate (C0110)
  1,4 mg triphenyltetrazoliumchloride
  100 mg cycloheximide (C0176)
  18 mg paraosanilin
- Allow medium to cool down to ca. 45 °C – 50 °C, mix the solutions and add antibiotics.
- Mix gently to avoid air bubbles and pour plates (15-20 ml per 9.0 cm plate).

Reference:
King, E.O. Ward, M.K. and Raney, D.E. 1954. Two simple media for the demonstration of pyocyanin and fluorescein. J. Lab. Clin. Med. 44:301-307.

K5129 KBZ MEDIUM	
K5129.1000	1 kg

For prepared and ready to use plates of this medium contact:
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