

KING Agar B, Base (Dansk Standard)

Medium proposed by KING et al. (1954) for the detection and enumeration of fluorescing bacteria in water, especially of *Pseudomonas fluorescens* in drinking water.

This culture medium complies with the Dansk Standard (BONDE 1962, 1965, 1972). FORMIGA (1985) successfully used KING Agar B to identify *Corynebacterium diphtheriae* with the UV fluorescence test.

Mode of Action

See *Pseudomonas* Agar F Base (MERCK, Cat. No. 1.10989.). Substitution of di-potassium hydrogen phosphate (which is recommended in the Dansk Standard) by tri-potassium phosphate 3-hydrate prevents decrease in pH after autoclaving and resulting decrease in the development of fluorescein.

Typical Composition (g/litre)

Proteose peptone 20.0; magnesium sulfate 1.5; tri-potassium phosphate 3-hydrate 1.8; agar-agar 10.0.

Also to be added:

Glycerol 10.0 g/litre.

Preparation

Suspend 33.5 g/litre together with 10 g glycerol/litre, autoclave (15 min at 121 °C).

pH: 7.1 ± 0.2 at 25 °C.

The plates are clear and yellowish-brown.

Experimental Procedure and Evaluation

In accordance with the Dansk Standard, prepare dilution series of the sample material (dilution factor 1 in 10), take two 1 ml

aliquots from each dilution step and inoculate the plate using pour plate method.

Incubation: up to 72 hours at 20-25 °C aerobically.

Determine the count of the fluorescing bacteria (UV lamp) and the total microbial count.

For the identification see *Pseudomonas* Agar F Base (MERCK, Cat. No. 1.10989.).

Literature

BONDE, G.J.: Bacterial Indicators of Water Pollution. (1962).

BONDE, G.J.: øresunds-Vandkomiteens undersøgelser, 288-291 (1965-70).

BONDE, G.J.: Medlemsblad for Den danske Dyrlægeforening. 55, 671 (1972).

FORMIGA, L.C.D.: New possibilities for the laboratory diagnosis of diphtheria. - *Brazilian J. Med. Biol. Res.*, **18**; 401-402 (1985).

KING, E.O., WARD, M.K., a. RANEY, D.E.: Two simple media for the demonstratoin of pyocyanin and fluorescein. - *J. Lab. Clin. Med.*, **44**; 301-307 (1954).

Ordering Information

Product	Merck Cat. No.	Pack size
KING Agar B, Base (Dansk Standard)	1.10991.0500	500 g
Glycerol (about 87 %)	1.04094.0500	500 ml
<i>Pseudomonas</i> Agar F, Base	1.10989.0500	500 g
UV Lamp (366 nm)	1.13203.0001	1 ea

Quality control

Test strains	Growth	Yellow-green pigment in daylight	Fluorescence at 366 nm
<i>Pseudomonas aeruginosa</i> ATCC 27853	good / very good	+	+
<i>Pseudomonas fluorescens</i> ATCC 13525	good / very good	+	+
<i>Pseudomonas fluorescens</i> ATCC 17397	good / very good	+	+
<i>Aeromonas hydrophila</i> ATCC 7966	good / very good	-	-
<i>Escherichia coli</i> ATCC 25922	good / very good	-	-
<i>Enterobacter cloacae</i> ATCC 13047	good / very good	-	-