# MICROBACT™ GRAM-NEGATIVE

## 12A, 12B, 12E & 24E

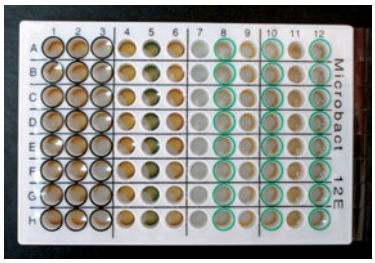
A range of simple, standardised systems for the rapid identification of Gram-negative bacteria.

### FAST

Most results available overnight.

### SIMPLE

Simple test strip or microplate format.

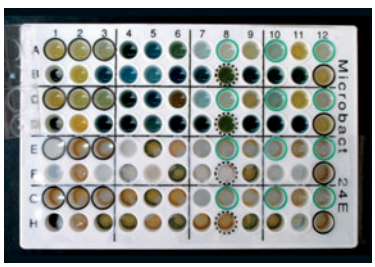



### EASY TO READ AND INTERPRET

Results are clearly visible as distinct colour reactions that can be interpreted using the Microbact™ Identification Package.

### COMPREHENSIVE

Identifies >100 Gram-negative bacteria, more unusual Enterobacteriaceae and oxidase-positive Gram-negative bacteria.




### FLEXIBLE

Use single strips or combine systems for more complex identifications.

Ideal for use in clinical or food microbiology laboratories.

### RELIABLE

A comprehensive range of biochemical tests based on published reference methodologies.[1-4]

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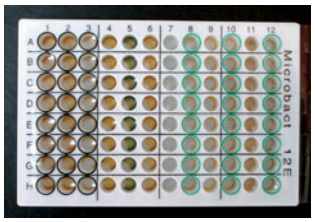
MICROBACT
IDENTIFICATION KITS

OXOID

# MICROBACT

IDENTIFICATION KITS



## TESTING FOR GRAM-NEGATIVE BACTERIA

Gram-negative bacteria are of significant concern in both clinical infections and food contamination. Identification of the causative agent is crucial in the clinical setting to identify the cause of infection and to establish an appropriate treatment regime. In the food industry, biochemical identification can help to trace the source of contamination.

## PRINCIPLE

Each kit contains 12 (12A, 12B & 12E) or 24 (24E) miniature biochemical tests. Organism identification is based on pH change and substrate utilisation. Clinical use only: Microbact™ Gram-negative 12A (strip format) and 12E (microplate format) may be used alone for the identification of oxidase-negative, nitrate-positive glucose fermenters (comprising 15 genera) and is useful for screening pathogenic Enterobacteriaceae from enteric and urine specimens.

Microbact™ Gram-negative 12B can be used in conjunction with 12A for the identification of oxidase-positive, nitrate-negative, glucose non-fermenters (miscellaneous Gram-negative bacteria - MGNB) and Enterobacteriaceae. Microbact™ Gram-negative 24E is a combination of the tests in 12A(or12E) and 12B in microplate format.

## PROCEDURE

For full details on how to use each Microbact™ Gram-negative system, please refer to the Technical Product Insert.

1. Obtain an 18-24 hour pure culture of the organism to be identified.
2. Perform an oxidase test to determine which kit(s) to use.
3. Select 1 to 3 isolated colonies and emulsify in saline.
4. Place Test Strip or Microplate in holding tray and peel back seal.
5. Add 4 drops bacterial suspension to each well.
6. Add 2 drops Mineral Oil (MB1093A) to black wells.
7. Replace seal and incubate at 35°C ± 2ºC for 18-24 hours.
8. Remove from incubator and add appropriate reagents (Table 1).
9. Record results on report forms and interpret using the Microbact™ Identification Package.

## IMPORTANT

- A purity check should be performed by inoculating a purity plate with 1 drop of bacterial suspension. This should be incubated at 35ºC ± 2ºC for 24 hours.
- Well 1 (12B) or well 13 (24E) must be read at 24-48 hours for Enterobacteriaceae and at 48 hours for MGNB.
- Well 12 (12B) or well 24 (24E) is interpreted differently at 24 hours and 48 hours. See Technical Product Insert for details.
- A nitrate reduction test can be performed in well 7 (12A/E, 24E) AFTER reading the ONPG reaction.
- Performance should be monitored by testing appropriate control strains.

### TABLE 1

Addition of reagents to Microbact™ Gram-negative Identification systems

| System | Well | Reagent | Quantity | Time to read |
|---|---|---|---|---|
| 12A (12E) or 24E | 8 | Indole | 2 drops | 2 mins |
| 12A (12E) or 24E | 10 | VPI & VPII | 1 drop each | 15-30 mins |
| 12A (12E) or 24E | 12 | TDA | 1 drop | Immediately |

## MICROBACT™ GRAM-NEGATIVE IDENTIFICATION SYSTEMS

### KIT CONTENTS:

| Microbact™ Gram-negative System | Product code | Number of Tests |
|---|---|---|
| 12A | MB1132A | 60 |
| 12B | MB1133A | 60 |
| 12E | MB1130A | 80 |
| 24E | MB1131A | 40 |
| 12A | MB1076A | 120 |
| 12B | MB1077A | 120 |
| 12E | MB1073A | 160 |
| 24E | MB1074A | 80 |
| Holding Tray | | |
| Technical Product Insert | | |
| Organism Identification Report Forms, including Colour Interpretation Chart | | |

### ADDITIONAL ITEMS REQUIRED:

Mineral Oil MB1093A, Oxidase Strips MB0266A, Microbact™ Identification Package (Windows®) MB1244A, Indole Reagent MB0209A, VPI Reagent MB0181A, VPII Reagent MB0184A, TDA Reagent MB0180A, NIT A Reagent MB0186A, NIT B Reagent MB0187A. The 6 reagents above are also available as Reagent Set D MB1082A.

**References:** 1. Farmer, J.J. et al (1985) J. Clin. Micro. 21(1): 46-76 2. Burke, V., Robinson, J., Atkinson, H.M. and Gracey, M. (Jan 1982) J. Clin. Micro. 48-52 3. Cowen, S.T. and Steel, K.J. (1977) Manual for the Identification of Medical Bacteria, 2nd edition, Cambridge University Press. 4. Balows, A., Hausler, W.J., Herrmann, K.L., Isengerg, J.D. and Shadomy, H.J. (eds) (1991) Manual of Clinical Microbiology, 5th edition, American Society of Microbiology, Washington

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