Hippurate Test

Kit used for the identification and determination of hippuricase producing bacteria.

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Hippurate Test Tubes	30 tubes
Hippurate Test Discs	30 discs
Ninhydrin Reagent	3.5 mL
1 Instruction sheet	

Storage condition : Store at 2 - 6°C

• PROCEDURE

1. Take the disc and test tube from the refrigerator and leave it for a few minutes on the bench until it has reached room temperature.
2. Add 0.2 mL of sterile distilled water to a Hippurate Test Tube.
3. Inoculate heavy pure bacterial colonies from fresh culture medium using a sterile loop to the test tube and mix well by using a vortex mixer.
4. Add a Hippurate Test Disc to the tube with organism.
5. Incubate at 36 ± 1°C for 2 hours.
6. After the incubation, add 3 - 4 drops of the Ninhydrin Reagent to the test tube and mix well.
7. Re-incubate at 36 ± 1°C for 10 - 30 minutes. Observe the color change of the suspension at 10 minute intervals during the incubation.

*If incubated for more than 30 minutes, false positive reaction may occur.

• INTERPRETATION

Hippurate Test is a kit used for the identification and determination of hippuricase producing bacteria. Group B Streptococci and some other bacteria (some Listeria spp. and *Campylobacter jejuni*.) contain the enzyme hippuricase (hippurate hydrolase) which can hydrolyze hippuric acid to sodium benzoate and glycine. The hydorlysis of hippuric acid is detected by ninhydrin reagent. Ninhydrin is a strong oxidizing agent that deaminates α-amino groups of glycine with the release of NH_3 and CO_2. The released ammonia reacts with residual ninhydrin to form a purple color.

• INTERPRETATION OF THE RESULTS

The development of a purple-blue color within 10 - 30 minutes indicates a positive reaction. Interpret the results according to the table;

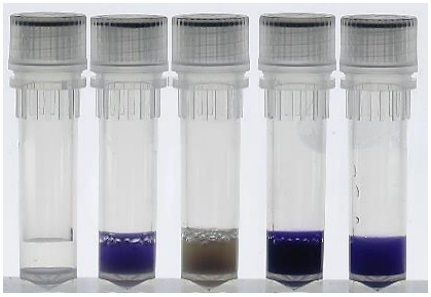
	Reaction
Positive	deep purple / blue color
Negative	no color change / faint blue / gray

• QUALITY CONTROL FOR USE

Appearance : Disc - 6mm paper disc
Reagent - clear
Color : Disc - white (colorless)
Reagent - light yellow
Incubation conditions : 36 ± 1°C / 2 hours
after addition of the reagent, 36 ± 1°C / 10 - 30 minutes

Microorganism		Hippurate Test
Campylobacter jejuni	ATCC 33291	+
Campylobacter coli	ATCC 33559	-
Listeria monocytogenes	ATCC 15313	+
Listeria ivanovii	ATCC 19119	+

*A faint blue is considered as negative reaction.



None *C.jej* *C.col* *L.mon* *L.iva*

• STORE

Store the Hippurate Test at 2 - 6°C in its original package tightly closed and use it before the expiry date on the label. Keep away from sources of heat and avoid excessive changes of temperature.

• REFERENCES

1. Finegold S.M., Martin W.J., Scott E.G. In: Bailey and Scott's Diagnostic Microbiology, 5th edition, p. 490. St. Louis, CV. Mosby, 1978.
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3. Piot, P. Gardnerella vaginalis. In: Manual of Clinical Microbiology. Lennette E.H., Balowes A., Hausler W.J., Shadomy H.J. Eds. American Society for microbiology. Washington, D.C. 1985.
4. Chapin K.C., Lauderdale T.L. Reagents, Stain and Media: bacteriology. In: Manual of Clinical Microbiology. Murray P.R., Baron E.J., Jorgensen J.H., Pfaller M.A., Yolken R.H. Eds. American Society for microbiology. Washington, D.C. 2003.

• PACKAGE

Cat. No : MB-88007 Hippurate Test	30 tubes 30 discs Reagent 3.5 mL

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