



ANTIBIOTIC DISKS (COLISTIN, KANAMYCIN, VANCOMYCIN)

- For in vitro use only -

Cat No. DC60, DK15 & DV10

Our Antibiotic Disks are intended as an aid in the preliminary grouping of anaerobes. Concentration of each disk varies as follows: Colistin 10-µg/disk, Kanamycin 1,000-µg/disk and Vancomycin 5-µg/disk.

Generally, gram-positive anaerobes are susceptible to vancomycin and resistant to colistin and gram-negative anaerobes are resistant to vancomycin. These disks are especially useful in differentiating between *Bacteroides* and *Fusobacterium* species. With a few exceptions, *Bacteroides* species are resistant to kanamycin and vancomycin and show variable susceptibility to colistin, while *Fusobacterium* species are generally resistant to vancomycin and susceptible to kanamycin and colistin.

Type of Organism	Vancomycin (5-µg)	Kanamycin (1,000-µg)	Colistin (10-µg)
<i>B. fragilis</i> group	R	R	R
<i>B. ureolyticus</i> group	R	S	S
<i>Fusobacterium</i> spp.	R	S	S
<i>Porphyromonas</i> spp.	S	R	S
<i>Veillonella</i> spp.	R	S	S

R = Resistant S = Susceptible

Recommended Procedure

1. Allow disks to adjust to room temperature prior to using
2. Using a sterile swab, streak a sample of the organism onto a Blood Agar Plate in three directions to obtain a heavy, confluent growth.
3. Aseptically place one of each of the antibiotic disks, suitably separated from each other, on the agar surface.
4. Incubate anaerobically at 35°C for 48 hours.
5. Measure zones of inhibition and record results.

Interpretation of Results

Susceptible: Zone of inhibition ≥10-mm

Resistant: Zone of inhibition <10-mm

- Results of disk susceptibility testing cannot be used to accurately determine in vivo antibiotic treatment

Quality Control

Organisms	Expected Results		
	C	K	V
<i>Bacteroides fragilis</i> ATCC 25285	R	R	R
<i>Fusobacterium nucleatum</i> ATCC 25586	S	S	R

S = Susceptible R = Resistant

Storage and Shelf Life

All of our antibiotic disks should be stored at -20°C. At this temperature they have a shelf life of 52 weeks from the date of manufacture.

Ordering Information

Cat#	Description	Format
DC60-25	Colistin Disks [10-µg / Disk]	25/vial
DK15-25	Kanamycin Disks [1,000-µg / Disk]	25/vial
DV10-25	Vancomycin Disks [5-µg / Disk]	25/vial

References

1. Vargo V, Korzeniowski M, Spaulding EH. Tryptic soy bile-kanamycin test for the identification of *Bacteroides fragilis*. *Appl Microbiol* 1974; 27:480-3.
2. Sutter VL, Citron DM, Edelstein MAC et al. *Wadsworth anaerobic manual*. 4th ed. Belmont, CA: Star Publishing Company, 1985.
3. Balows A, Hausler WJ, Hermann KL et al. *Manual of clinical microbiology*. 5th ed. Washington, DC: ASM, 1991.
4. Isenberg HD, Ed. *Clinical microbiology procedures handbook, Vol 1*. Washington, DC: ASM, 1992.
5. MacFaddin JF. *Biochemical tests for identification of medical bacteria*. 3rd ed. Philadelphia, PA: Lippincott Williams & Wilkins, 2000.

Original: March 2004

Revised / Reviewed: October 2014