AUG 9 - 2005

Summary of Safety and Effectiveness

This summary of 510(k) safety and effectiveness information is being submitted in accordance with the requirements of SMDA 1990 and 21 CFR 807.92.

The assigned 510(k) number is: **K043224**

GEN-PROBE® APTIMA COMBO2® Assay
GEN-PROBE® APTIMA® Specimen Transfer Kit

Sponsor/Contact Information

Submitted By:

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General Information

Trade Name: GEN-PROBE® APTIMA COMBO2® Assay

Common or Usual Name: Ribosomal RNA (rRNA) target-amplified nucleic acid probe test for the *in vitro* diagnostic detection of *Chlamydia trachomatis* and/or *Neisseria gonorrhoeae*

Classification Names: DNA Probe, Nucleic Acid Amplification, Chlamydia
DNA Reagents, Neisseria

APTIMA Combo 2 Assay

Device Description	DNA Probe, Nucleic Acid Amplification, Chlamydia
Medical Specialty	Microbiology
Product Code	MKZ
Device Class	1
Regulation number	866.3120

Device Description	DNA Reagents, Neisseria
Medical Specialty	Microbiology
Product Code	LSL
Device Class	2
Regulation number	866.3390

Substantially Equivalent Devices:

APTIMA Combo 2 Assay (K003395)

Roche COBAS AMPLICOR™ CT/NG Test
(P950039/S008)

Device Description

Clearance of this premarket notification extends the clinical performance claims of the commercially available GEN-PROBE APTIMA Combo 2 Assay to include PreservCyt liquid Pap specimens (collected and processed by the Cytyc ThinPrep 2000 Processor) as acceptable testing specimens. The ancillary kit formulated for this specific application is the GEN-PROBE APTIMA Specimen Transfer Kit. The components of the APTIMA Specimen Transfer Kit include: (1) a transport tube containing transport media with a penetrable cap and (2) specific instructions for use regarding decontamination and specimen processing procedures. The APTIMA Specimen Transfer Kit may only be used in conjunction with GEN-PROBE APTIMA Assays for the detection of *Chlamydia trachomatis* and/or *Neisseria gonorrhoeae*..

Intended Use

AC2 Assay package insert:

The APTIMA Combo 2 Assay is a target amplification nucleic acid probe test that utilizes target capture for the *in vitro* qualitative detection and differentiation of ribosomal RNA (rRNA) from *Chlamydia trachomatis* (CT) and/or *Neisseria gonorrhoeae* (GC) in clinician-collected endocervical, vaginal, and male urethral swab specimens, patient-collected vaginal swab specimens*, and female and male urine specimens. The assay is also intended for use with testing of gynecological specimens collected in the PreservCyt Solution and processed with the Cytyc ThinPrep 2000 System. The assay may be used to test specimens from symptomatic and asymptomatic individuals to aid in the diagnosis of gonococcal and/or chlamydial urogenital disease.

*Patient-collected vaginal swab specimens are an option for screening women when a pelvic exam is not otherwise indicated. The vaginal swab specimen collection kit is not for home use.

Ancillary Kit package insert:

The GEN-PROBE® APTIMA® Specimen Transfer Kit is only for use with GEN-PROBE APTIMA assays for the detection of *Chlamydia trachomatis* and/or *Neisseria gonorrhoeae*. The GEN-PROBE APTIMA Specimen Transfer Kit allows for APTIMA Assay testing of gynecological specimens collected and processed by the Cytyc ThinPrep 2000 Processor according to the instructions provided.

APTIMA Combo 2 Assay

A complete description of the APTIMA Combo 2 Assay is provided in the commercialized package insert.

Summary of Non-Clinical (Analytical Laboratory) Performance Data

Limit of Detection (Analytical Sensitivity)

Chlamydia trachomatis analytical sensitivity (limits of detection) was determined by directly comparing dilutions of *C. trachomatis* organisms in cell culture and in the assay. The analytical sensitivity claim for the assay is one Inclusion-Forming Unit (IFU) per assay (9.75 IFU/mL PreservCyt liquid Pap) for all 15 *C. trachomatis* serovars. However, dilutions of less than 1 IFU/assay of all serovars tested positive in the APTIMA Combo 2 Assay.

Neisseria gonorrhoeae analytical sensitivity was determined by directly comparing dilutions of 20 different clinical isolates in culture and in the APTIMA Combo 2 Assay. The analytical sensitivity claim for the assay is 50 cells/assay (488 cells/mL PreservCyt liquid Pap). However, all strains tested were positive at less than 50 cells/assay.

Analytical Specificity

The *Chlamydia* and *Neisseria* species were used to evaluate the analytical specificity of the AC2 Assay. A total of 50 culture isolates were tested in the PreservCyt liquid Pap media. These isolates included 47 *Neisseria* strains and two species of *Chlamydia* (two strains of *Chlamydia psittaci* and one strain of *Chlamydia pneumoniae*). All organisms except *C. psittaci* and *C. pneuomoniae* were tested at greater than 1.0×10^6 cells/assay in the mixed solution (PreservCyt/STM). For *C. psittaci*, two isolates were tested – VR601 at a concentration of 7.91×10^4 cells/assay, and VR629 at a concentration of 1×10^4 $CELD_{50}$/0.2 mL. For *C. pneumoniae* (VR1360), the tested concentration was 3.95×10^3

cells/assay. The list of organisms tested and their corresponding AC2 Assay results are provided in the Table below

Analytical Specificity – PreservCyt liquid Pap Specimen Study

ORGANISM	ORGANISM
Chlamydia psittaci	*Neisseria cinerea (4)*
Chlamydia psittaci	*Neisseria dentrificans*
Chlamydia pneumoniae	*Neisseria lactamica (9)*
Neisseria elongate (3)	*N. meningitidis* Serogroup A
Neisseria flava	*N. meningitidis* Serogroup B
Neisseria mucosa	*N. meningitidis* Serogroup C (4)
Neisseria mucosa	*N. meningitidis* Serogroup D
Neisseria perflava	*N. meningitidis* Serogroup Y
Neisseria sicca	*N. meningitidis* Serogroup W135
Neisseria sicca	*Neisseria polysaccharea*
Neisseria subflava(14)	

(n) = number of strains tested
All organisms tested produced a negative result in the APTIMA Combo 2 Assay.

Interference Studies

The following substances commonly present in cervical specimens that were tested in the assay. 10% blood, contraceptive jelly, spermicide, moisturizer, hemorrhoidal anesthetic, body oil, powder, anti-fungal cream, vaginal lubricants, feminine spray, and leukocytes (1 x 10^6 cells/mL).

All were tested for potential assay interference in the absence and presence of *C. trachomatis* and *N. gonorrhoeae* at the estimated rRNA equivalent of one *C. trachomatis* IFU/assay (5 fg/assay) and 50 *N. gonorrhoeae* cell/assay (250 fg/assay). The rRNA equivalents were calculated based on the genome size and estimated DNA:RNA ratio/cell of each organism. No interference was observed with any of the tested substances.

Recovery

Escherichia coli, *Gardnerella vaginalis*, *Lactobacillus acidophilus*, *Bacteroides ureolyticus* and *Staphylococcus epidermidis* (1×10^8 cells/assay) were added to samples containing the rRNA equivalent of approximately 1 *C. trachomatis* IFU (5 fg) and 50 *N. gonorrhoeae* cells (250 fg). These additions did not interfere with the amplification and detection of *C. trachomatis* or *N. gonorrhoeae* rRNA using the AC2 Assay.

PreservCyt Liquid Pap Specimen Stability Studies

Data to support the recommended shipping and storage conditions for PreservCyt liquid Pap samples were generated with pooled negative PreservCyt liquid Pap samples. Four pooled samples were spiked with *C. trachomatis* and *N. gonorrhoeae* at final concentrations of 10 IFU and 100 CFU per reaction, respectively. The PreservCyt liquid Pap samples were placed at 30°C for 7 days, after which 1 mL of the sample was added to an APTIMA Transfer Tube. The spiked samples were held at 4°C, 10°C and 30°C. Samples stored at 4°C and 10°C were tested in duplicate at days 0, 6, 13, 26, 30 and 36. Samples stored at 30°C were tested in duplicate at days 0, 5, 8, 14 and 17. Four spiked PreservCyt liquid Pap sample pools were added to APTIMA Transfer Tubes and placed at 30°C for 14 days before being stored at -20°C. The -20°C samples were tested in duplicate after 0, 30, 60, 90 and 106 days of storage. All test conditions were positive for both *C. trachomatis* and *N. gonorrhoeae* at all times and temperatures.

Precision

Reproducibility was established with a 12-member panel generated by spiking PreservCyt Solution with 0 to 2000 fg/assay of *C. trachomatis* and 0 to 5,000 fg/assay of *N. gonorrhoeae* rRNA and aliquotting 1mL into the APTIMA Specimen Transfer Kit collection tube. Two (2) operators at each of the three sites performed one run per day on each of three days, totaling three valid runs per operator. The results of the precision study are summarized in the table below. Reproducibility when testing PreservCyt liquid Pap clinical specimens containing target organism has not been determined.

APTIMA Combo 2 Assay Precision Study - PreservCyt Solution

Concentration (fg/assay)					Inter-Site		Inter-Operator		Inter-Run		Intra-Run	
CT	GC	n	Agrmt(%)	Mean RLU (x1000)	SD (x1000)	CV(%)	SD (x1000)	CV(%)	SD (x1000)	CV(%)	SD (x1000)	CV(%)
0	0	162	97.5	9.7	6.4	N/A	4.7	N/A	3.4	N/A	31.6	N/A
0	5,000	54	96.3	1296	0.0	0.0	0.0	0.0	54.8	4.2	146	11.3
2,000	0	54	100	1140	101	8.9	2.4	0.2	79.8	7.0	54.1	4.7
2,000	5,000	54	100	2345	94.7	4.0	37.9	1.6	78.0	3.3	79.6	3.4
0	250	54	100	953	161	16.9	90.7	9.5	0.0	0.0	114	12.0
5	0	54	100	971	22.8	2.4	85.0	8.8	71.7	7.4	58.3	6.0
1,000	2,500	54	100	2294	153	6.7	0.0	0.0	88.9	3.9	114	5.0
100	250	54	98.1	1911	348	18.2	39.7	2.1	130	6.8	139	7.3
5	5,000	54	100	2136	98.8	4.6	166	7.8	130	6.1	113	5.3
2,000	250	54	96.3	2044	360	17.6	26.9	1.3	169	8.3	138	6.7

N/A = not applicable for negative panel members
Agrmt = Agreement, CV = Coefficient of variation, RLU = Relative Light Units, SD = Standard deviation

PreservCyt Liquid Pap Specimen Clinical Study Results

A prospective multi-center clinical study was conducted to evaluate the use of the PreservCyt Solution (a component of the ThinPrep 2000 System) as an alternative medium for gynecological specimens for the detection of *Chlamydia trachomatis* and *Neisseria gonorrhoeae*. One thousand six hundred forty-seven (1,647) symptomatic and asymptomatic female subjects attending OB/GYN, family planning, public health, women's and STD clinics were evaluated in the clinical study. Of the 1,647 evaluable subjects, 1,288 were asymptomatic subjects and 359 were symptomatic subjects. Subjects were enrolled from sites with CT prevalence that ranged from 3.2 to 14.0% and GC prevalence that ranged from 0 to 5.0%. Two specimens were collected from each eligible subject: one PreservCyt Solution specimen and one endocervical swab. PreservCyt Solution specimens were processed in accordance with the ThinPrep 2000 Processor Operator's Manual and APTIMA Specimen Transfer Kit Package Insert. After processing the PreservCyt Solution specimen with the ThinPrep 2000 Processor, the specimen was transferred into the APTIMA Specimen Transfer Kit for testing with the APTIMA Combo 2 Assay. The PreservCyt liquid Pap specimens and endocervical swab specimens were tested with the APTIMA Combo 2 Assay.

Sensitivity and specificity for PreservCyt liquid Pap specimens were calculated by comparing results to a patient infected status algorithm. In the algorithm, the designation of a subject as being infected or non-infected with *C. trachomatis* or *N.gonorrhoeae* was based on endocervical swab specimen results from two commercially-available NAATs. For *C. trachomatis,* the reference NAATs included the APTIMA Combo 2 Assay and the APTIMA CT Assay. For *N. gonorrhoeae,* the reference NAATs included the APTIMA Combo 2 Assay and the APTIMA GC Assay. Positive results from both reference NAATs were required to establish an *infected* patient. A *non-infected* patient was established if the results from the two reference NAATs disagreed or were negative.

Sensitivity and specificity for *C. trachomatis* in PreservCyt liquid Pap specimens tested in the APTIMA Combo 2 Assay, by symptom status and overall, is presented in Table 1. For

C. trachomatis, overall sensitivity was 96.7% (87/90). In symptomatic and asymptomatic subjects, sensitivity was 96.7% (29/30) and 96.7% (58/60), respectively. Overall specificity for *C. trachomatis* PreservCyt liquid Pap specimens was 99.2% (1545/1557). In symptomatic and asymptomatic subjects, specificity was 98.5% (324/329) and 99.4% (1221/1228), respectively. Table 2 shows the APTIMA Combo 2 Assay sensitivity and specificity values for *C. trachomatis* in PreservCyt liquid Pap specimens by clinical site and overall. For *C. trachomatis*, the sensitivity ranged from 92.9% to 100%. The specificity ranged from 97.7% to 100%.

Sensitivity and specificity for *N. gonorrhoeae* in PreservCyt liquid Pap specimens tested in the APTIMA Combo 2 Assay, by symptom status and overall, is presented in Table 3. For *N. gonorrhoeae*, overall sensitivity was 92.3% (12/13). In symptomatic and asymptomatic subjects, sensitivity was 100% (7/7) and 83.3% (5/6), respectively. Overall specificity for *N. gonorrhoeae* PreservCyt liquid Pap specimens was 99.8% (1630/1633). In symptomatic and asymptomatic subjects, specificity was 100% (352/352) and 99.8% (1278/1281), respectively. Table 4 shows the APTIMA Combo 2 Assay sensitivity and specificity values for *N. gonorrhoeae* in PreservCyt liquid Pap specimens by clinical site and overall. For *N. gonorrhoeae*, the sensitivity ranged from 80.0% to 100%. Specificity ranged from 99.0% to 100%.

The distribution of cervical sampling devices used in this clinical study according to clinical site is summarized in the table below.

Cervical sampling devices

Cervical sampling device used	Clinical Collection Site						Total
	1	2	3	4	5	6	
Spatula/Cytobrush	0	124	475	287	57	364	1307
Broom-Type Device	100	0	0	0	240	0	340

Table 1: CT Sensitivity and Specificity: AC2 Assay PreservCyt Specimens vs. Patient Infected Status

	AC2 /CT ThinPrep Result	AC2 ES+ and ACT ES+	AC2 ES + and ACT ES -	AC2 ES- and ACT ES+	AC2 ES- and ACT ES-	Sensitivity (95% CI)	Specificity (95% CI)
Asympt	Positive	58	1	0	6	96.7 % (88.5-99.6)	99.4% (98.8 -99.8)
	Negative	2	1	12	1208		
	Total	60	2	12	1214		
Sympt	Positive	29	0	0	5	96.7% (82.8 - 99.9)	98.5% (96.5-99.5)
	Negative	1	3	4	317		
	Total	30	3	4	322		
All	Positive	87	1	0	11	96.7 % (90.6 - 99.3)	99.2% (98.7 -99.6)
	Negative	3	4	16	1525		
	Total	90	5	16	1536		

AC2 ES+ = Positive endocervical swab specimen APTIMA Combo 2 Assay result
AC2 ES- = Negative endocervical swab specimen APTIMA Combo 2 Assay result
ACT ES+ = Positive endocervical swab specimen APTIMA CT Assay result
ACT ES- = Negative endocervical swab specimen APTIMA CT Assay result

Table 2. CT Performance by Clinical Site: AC2 Assay PreservCyt Specimens vs. Patient Infected Status

Site	AC2 /CT ThinPrep Result	AC2 ES+ and ACT ES+	AC2 ES + and ACT ES -	AC2 ES- and ACT ES+	AC2 ES- and ACT ES-	Prev (%)	Sensitivity (95% CI)	Specificity (95% CI)	PPV (%)	NPV (%)
1	Positive	14	0	0	2	14.0	100% (76.8 – 100)	97.7% (91.9 – 99.7)	87.5	100
	Negative	0	0	1	83					
	Total	14	0	1	85					
2	Positive	4	0	0	0	3.2	100% (39.8 – 100)	100% (97.0 – 100)	100	100
	Negative	0	0	2	118					
	Total	4	0	2	118					
3	Positive	29	0	0	2	6.5	93.5% (78.6 – 99.2)	99.5% (98.4 – 99.9)	93.5	99.5
	Negative	2	0	2	440					
	Total	31	0	2	442					
4	Positive	8	1	0	4	2.8	100% (63.1 – 100)	98.2% (95.9 – 99.4)	61.5	100
	Negative	0	2	1	271					
	Total	8	3	1	275					
5	Positive	13	0	0	2	4.7	92.9% (66.1 – 99.8)	99.3% (97.5 – 99.9)	86.7	99.6
	Negative	1	1	4	276					
	Total	14	1	4	278					
6	Positive	19	0	0	1	5.2	100% (82.4 – 100)	99.7% (98.4 – 100)	95.0	100
	Negative	0	1	6	337					
	Total	19	1	6	338					
All	Positive	87	1	0	11	5.5	96.7% (90.6 – 99.3)	99.2% (98.7 – 99.6)	87.9	99.8
	Negative	3	4	16	1525					
	Total	90	5	16	1536					

AC2 ES+ = Positive endocervical swab specimen APTIMA Combo 2 Assay result
AC2 ES- = Negative endocervical swab specimen APTIMA Combo 2 Assay result
ACT ES+ = Positive endocervical swab specimen APTIMA CT Assay result
ACT ES- = Negative endocervical swab specimen APTIMA CT Assay result

Table 3: GC Sensitivity and Specificity: AC2 Assay PreservCyt Specimens vs. Patient Infected Status

	AC2 /GC ThinPrep Result	AC2 ES+ and AGC ES+	AC2 ES + and AGC ES -	AC2 ES- and AGC ES+	AC2 ES- and AGC ES-	Sensitivity (95% CI)	Specificity (95% CI)
Asympt	Positive	5	0	0	3	83.3% (35.9 - 99.6)	99.8% (99.3 - 100)
	Negative	1	0	5	1273		
	Total	6	0	5	1276		
Sympt	Positive	7	0	0	0	100% (59.0 - 100)	100% (99.0-100)
	Negative	0	0	0	352		
	Total	7	0	0	352		
All	Positive	12	0	0	3	92.3% (64.0 - 99.8)	99.8% (99.5 – 100)
	Negative	1	0	5	1625		
	Total	13	0	5	1628		

AC2 ES+ = Positive endocervical swab specimen APTIMA Combo 2 Assay result
AC2 ES- = Negative endocervical swab specimen APTIMA Combo 2 Assay result
AGC ES+ = Positive endocervical swab specimen APTIMA GC Assay result
AGC ES- = Negative endocervical swab specimen APTIMA GC Assay result

Table 4. GC Performance by Clinical Site: AC2 Assay PreservCyt Specimens vs. Patient Infected Status

Site	AC2 /GC ThinPrep Result	AC2 ES+ and AGC ES+	AC2 ES + and AGC ES -	AC2 ES- and AGC ES+	AC2 ES- and AGC ES-	Prev (%)	Sensitivity (95% CI)	Specificity (95% CI)	PPV (%)	NPV (%)
1	Positive	5	0	0	0	5.0	100% (47.8 – 100)	100% (96.2 – 100)	100	100
	Negative	0	0	0	95					
	Total	5	0	0	95					
2	Positive	1	0	0	0	0.8	100% (2.5 – 100)	100% (97.0 – 100)	100	100
	Negative	0	0	0	123					
	Total	1	0	0	123					
3	Positive	4	0	0	0	1.1	80.0% (28.4 – 99.5)	100% (99.2 – 100)	100	99.8
	Negative	1	0	0	470					
	Total	5	0	0	470					
4	Positive	1	0	0	0	0.3	100% (2.5 – 100)	100% (98.7 – 100)	100	100
	Negative	0	0	3	283					
	Total	1	0	3	283					
5	Positive	0	0	0	3	0.0	N/A	99.0% (97.1 – 99.8)	0.0	100
	Negative	0	0	0	294					
	Total	0	0	0	297					
6	Positive	1	0	0	0	0.3	100% (2.5 – 100)	100% (99.0 – 100)	100	100
	Negative	0	0	2	360					
	Total	1	0	2	360					
All	Positive	12	0	0	3	0.8	92.3% (64.0 – 99.8)	99.8% (99.5 – 100)	80.0	99.9
	Negative	1	0	5	1625					
	Total	13	0	5	1628					

AC2 ES+ = Positive endocervical swab specimen APTIMA Combo 2 Assay result
AC2 ES- = Negative endocervical swab specimen APTIMA Combo 2 Assay result
AGC ES+ = Positive endocervical swab specimen APTIMA GC Assay result
AGC ES- = Negative endocervical swab specimen APTIMA GC Assay result
N/A = not applicable

Prevalence

The prevalence of *C. trachomatis* and/or *N. gonorrhoeae* disease in patient populations depends on risk factors such as age, gender, the presence of symptoms, the type of clinic, and the test method. A summary of the prevalence of three *C. trachomatis* and *N. gonorrhoeae* disease outcomes as determined by the APTIMA Combo 2 Assay is shown in Table 5 by clinical site and overall. The CT and GC prevalence were calculated using the APTIMA Combo 2 Assay results of PreservCyt liquid Pap specimen

Table 5: Prevalence of *C. trachomatis* and/or *N. gonorrhoeae* Disease as Determined by the APTIMA Combo 2 Assay Results by Clinical Site

Site	PreservCyt liquid Pap Specimens % Prevalence (# positive/# tested)					
	CT+/GC+		CT+/GC-		CT-/GC+	
1	3.0	(3/100)	13.0	(13/100)	2.0	(2/100)
2	0	(0/124)	3.2	(4/124)	0.8	(1/124)
3	0.4	(2/475)	6.1	(29/475)	0.4	(2/475)
4	0.4	(1/287)	4.2	(12/287)	0	(0/287)
5	0	(0/297)	5.1	(15/297)	1.0	(3/297)
6	0	(0/364)	5.5	(20/364)	0.6	(2/364)
All	0.4	(6/1647)	5.6	(93/1647)	0.6	(10/1647)

Conclusions from the Clinical Data

The non clinical and clinical study results support the use of PreservCyt liquid Pap specimens collected and processed by the Cytyc ThinPrep 2000 Processor in the GEN-PROBE APTIMA Combo 2 Assay for the detection of *C. trachomatis* and/or *N. gonorrhoeae*. The GEN-PROBE APTIMA Specimen Transfer Kit provides the necessary materials and instructions to allow for the testing of PreservCyt liquid Pap specimens in the AC2 Assay. Use of this ancillary kit broadens the application of the AC2 Assay as a diagnostic tool to provide information that measurably contributes to a diagnosis of *C. trachomatis* and/or *N. gonorrhoeae* infection.

The results of the clinical study demonstrate reasonable evidence that when the AC2 Assay and the APTIMA Specimen Transfer Kit are labeled as proposed, the AC2 Assay continues to be safe and effective for its stated intended use.

Contraindications and Cautions

There are no contraindications or cautions.

DEPARTMENT OF HEALTH & HUMAN SERVICES

Food and Drug Administration
2098 Gaither Road
Rockville MD 20850

AUG 9 - 2005

Alan Maderazo, Ph.D. RAC
Sr. Regulatory Affairs Specialist
Gen-Probe Incorporated
10210 Genetic Center Drive
San Diego, CA 92121-1589

Re: K043224
Trade/Device Name: GEN-PROBE® APTIMA® Combo 2 Assay
Regulation Number: 21 CFR 866.3390
Regulation Name: *Neisseria* spp. direct serological test reagents
Regulatory Class: Class II
Product Code: LSL, MKZ
Dated: August 2, 2005
Received: August 4, 2005

Dear Dr. Maderazo:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

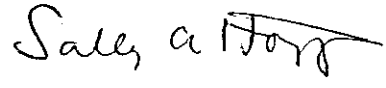
If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in Title 21, Code of Federal Regulations (CFR), Parts 800 to 895. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Parts 801 and 809); and good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820).

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific information about the application of labeling requirements to your device, or questions on the promotion and advertising of your device, please contact the Office of *In Vitro* Diagnostic Device Evaluation and Safety at (240)276-0484. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address http://www.fda.gov/cdrh/industry/support/index.html

Sincerely yours,



Sally A. Hojvat, M.Sc., Ph.D.
Director
Division of Microbiology Devices
Office of *In Vitro* Diagnostic Device
Evaluation and Safety
Center for Devices and
Radiological Health

Enclosure

CDRH Special Sheet - Device Indications for Use

510(k) Number (if known): **K043224**

Device Name: GEN-PROBE® APTIMA® Combo 2 Assay

Indications For Use:

AC2 Assay package insert:

The APTIMA Combo 2 Assay is a target amplification nucleic acid probe test that utilizes target capture for the *in vitro* qualitative detection and differentiation of ribosomal RNA (rRNA) from *Chlamydia trachomatis* (CT) and/or *Neisseria gonorrhoeae* (GC) in clinician-collected endocervical, vaginal, and male urethral swab specimens, patient-collected vaginal swab specimens*, and female and male urine specimens. The assay is also intended for use with testing of gynecological specimens collected in the PreservCyt Solution and processed with the Cytyc ThinPrep 2000 System. The assay may be used to test specimens from symptomatic and asymptomatic individuals to aid in the diagnosis of gonococcal and/or chlamydial urogenital disease.

*Patient-collected vaginal swab specimens are an option for screening women when a pelvic exam is not otherwise indicated. The vaginal swab specimen collection kit is not for home use.

Ancillary Kit package insert:

The GEN-PROBE® APTIMA® Specimen Transfer Kit is only for use with GEN-PROBE APTIMA assays for the detection of *Chlamydia trachomatis* and/or *Neisseria gonorrhoeae*. The GEN-PROBE APTIMA Specimen Transfer Kit allows for APTIMA Assay testing of gynecological specimens collected and processed by the Cytyc ThinPrep 2000 Processor according to the instructions provided.

Prescription Use ✓ AND/OR Over-The-Counter Use _____
(Part 21 CFR 801 Subpart D) (21 CFR 807 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of In Vitro Diagnostic Devices (OIVD)

Division Sign-Off

Office of In Vitro Diagnostic Device Evaluation and Safety