

**Centers for Disease Control and Prevention
Model Performance Evaluation Program
Human Immunodeficiency Virus Type 1 (HIV-1) Testing**

**Figures Used for the Analysis
of the January 27, 1997 Performance Evaluation
Testing Results Reported by Participant Laboratories**

**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control and Prevention
Public Health Practice Program Office
Division of Laboratory Systems
Atlanta, Georgia 30333**



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Report of the January 27, 1997 Human Immunodeficiency virus type I (HIV-1)
Performance Evaluation Sample Testing Results Provided by Participant
Laboratories in the Model Performance Evaluation Program, Centers for Disease
Control and Prevention (CDC).

The production of this report was coordinated in CDC by:

Public Health Practice Program Office.....Edward L. Baker, M.D., M.P.H., Director
Division of Laboratory Systems.....Carlyn L. Collins, M.D., M.P.H., Director
Laboratory Practice Assessment Branch.....Thomas L. Hearn, Ph.D., Chief

The material in this report was developed and prepared by:

Model Performance Evaluation Program (MPEP).....William O. Schalla, M.S., Chief
MPEP Retroviral Performance Evaluation.....Sharon O. Blumer, M.S.
Retroviral Project Coordinator

Information about this report should be addressed to the Model Performance Evaluation
Program by calling (770) 488-4147 or (770) 488-4366.

**Centers for Disease Control and Prevention (CDC)
Model Performance Evaluation Program
Human Immunodeficiency Virus Type 1 (HIV-1) Antibody Testing
January 27, 1997 Participant Laboratory Shipment**

Table 1

Panel Letter	Vial Label	CDC Donor Number	CDC Result ²	Laboratory Interpretation ¹			
				EIA		WB	IIF
				INIT. ³	FINAL ⁴		
E	E1	15	Positive	—	—	—	—
	E2, E3	07	Negative	—	—	—	—
	E4	01	Positive	—	—	—	—
	E5, E6	11	Positive	—	—	—	—
F	F1, F3	12	Positive	—	—	—	—
	F2	16	Positive	—	—	—	—
	F4, F6	08	Negative	—	—	—	—
	F5	02	Positive	—	—	—	—
G	G1, G5	09	Negative	—	—	—	—
	G2, G6	13	Positive	—	—	—	—
	G3	03	Positive	—	—	—	—
	G4	17	Positive	—	—	—	—
H	H1	04	Positive	—	—	—	—
	H2, H5	14	Positive	—	—	—	—
	H3, H4	10	Negative	—	—	—	—
	H6	18	Positive	—	—	—	—

¹ Laboratory Interpretation space (to be completed by participant laboratory) provided to facilitate comparison of participant laboratory result with CDC result.

² The CDC result was obtained after composite testing with all HIV-1 and HIV-1/HIV-2 EIA and HIV-1 WB kits licensed by the Food and Drug Administration (FDA), and employing the WB interpretive criteria of the Association of State and Territorial Public Health Laboratory Directors/CDC (ASTPHLD/CDC).

³ Initial EIA interpretation

⁴ Final EIA interpretation

**Centers for Disease Control and Prevention (CDC)
Model Performance Evaluation Program for
Human Immunodeficiency Virus Type I (HIV-1) Antibody Testing**

**Table 2. CDC Western Blot (WB) Testing Results for the
January 27, 1997 Participant Laboratory Panel Samples**

Panel Letter	Vial Label	CDC Donor Number	CDC Western Blot Test Results ¹ Specific WB Bands Detected	WB Test Kit Manufacturer	CDC Interpretation ²
E	E1	15	18,24,55,160 17,24,160 24	BioRad Cambridge Biotech* Epitope/Organon	Positive Positive Indeterminate
	E2, E3	07	No Bands	All Manufacturers	Negative
	E4	01	18,24,32,41,51,55,65,120,160 17,24,31,41,51,66,120,160 24,31,41,51,55,65,120,160	BioRad Cambridge Biotech Epitope/Organon	Positive Positive Positive
	E5, E6	11	18,24,32,51,55,65,120,160 17,24,31,41,51,66,120,160 24,51,65,160	BioRad Cambridge Biotech Epitope/Organon	Positive Positive Positive
F	F1, F3	12	24,41,55,120,160 24,41,66,120,160 24,41,120,160	BioRad Cambridge Biotech Epitope/Organon	Positive Positive Positive
	F2	16	18,24,41,55,120,160 17,24,120,160 24,55	BioRad Cambridge Biotech Epitope/Organon	Positive Positive Indeterminate
	F4, F6	08	No Bands	All Manufacturers	Negative
	F5	02	18,24,32,41,51,55,65,120,160 17,24,31,41,51,55,66,120,160 18,24,31,41,51,55,65,120,160	BioRad Cambridge Biotech Epitope/Organon	Positive Positive Positive
G	G1, G5	09	No Bands	All Manufacturers	Negative
	G2, G6	13	24,55 24,120,160 24	BioRad Cambridge Biotech Epitope/Organon	Indeterminate Positive Indeterminate
	G3	03	18,24,32,41,51,55,65,120,160 17,24,31,41,51,55,66,120,160 18,24,31,41,51,55,65,120,160	BioRad Cambridge Biotech Epitope/Organon	Positive Positive Positive
	G4	17	18,24,55,65,160 24,66,120,160 24,65,160	BioRad Cambridge Biotech Epitope/Organon	Positive Positive Positive
H	H1	04	18,24,32,41,51,55,65,120,160 17,24,31,41,51,66,120,160 24,31,41,51,65,120,160	BioRad Cambridge Biotech Epitope/Organon	Positive Positive Positive
	H2, H5	14	24,32,41,51,55,65,120,160 24,31,41,51,66,120,160 24,31,41,51,65,120,160	BioRad Cambridge Biotech Epitope/Organon	Positive Positive Positive
	H3, H4	10	No Bands	All Manufacturers	Negative
	H6	18	18,24,55,160 17,24,51,120,160 24,160	BioRad Cambridge Biotech Epitope/Organon	Positive Positive Positive

¹ Western blot (WB) result based on band intensity of $\geq 1+$ staining.

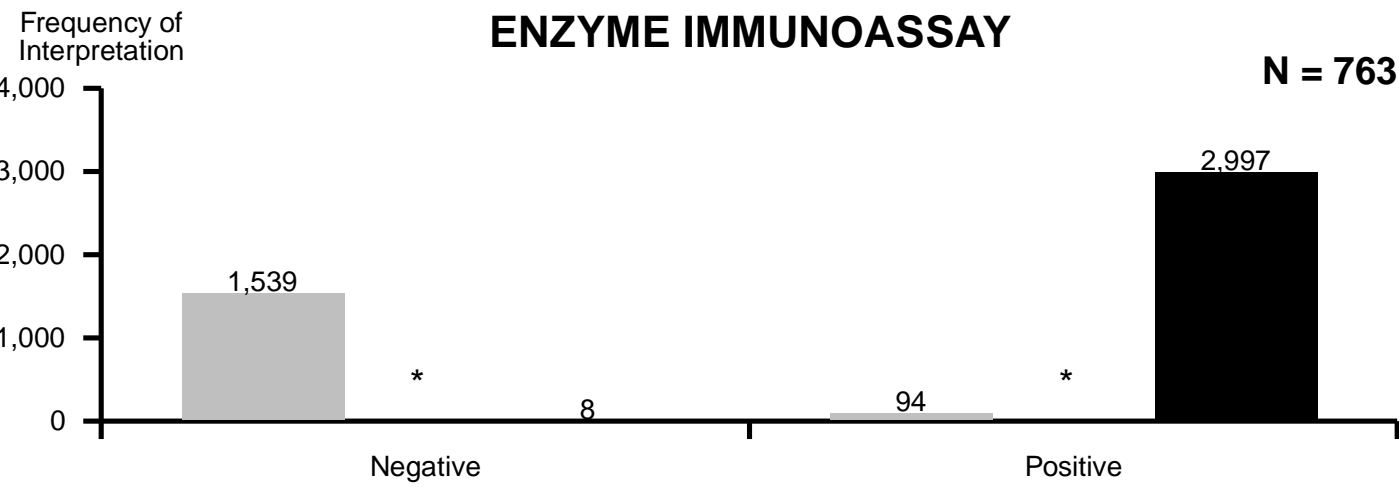
² The CDC interpretation is consistent with the manufacturer's criteria for interpretation of WB results.

* BioMerieux Vitek/Cambridge Biotech

**SUPPLEMENTAL INFORMATION FOR COMPREHENDING
THE NUMBERS USED TO LABEL FIGURES
IN THIS REPORT**

The "N=" that appears on each graph represents the number of laboratories that reported results. For some graphs, laboratories reported results using more than one test; therefore, the number of results may exceed the actual number of laboratories providing reports. In figures 1-7 and 10, the vertical axis is labeled either as frequency or percentage of results; in figures 8 and 9, this axis is labeled as percentage of reports. However, in all figures, the number appearing directly above or within each bar represents a frequency of results only.

Figure 1. Frequency of HIV-1 antibody test result interpretations, by sample type (reactivity), for enzyme immunoassay (EIA), Western blot (WB), and indirect immunofluorescence (IIF), reported by participant laboratories for the January 27, 1997 shipment



* = Indeterminate is not an EIA interpretation option; these areas have been left blank

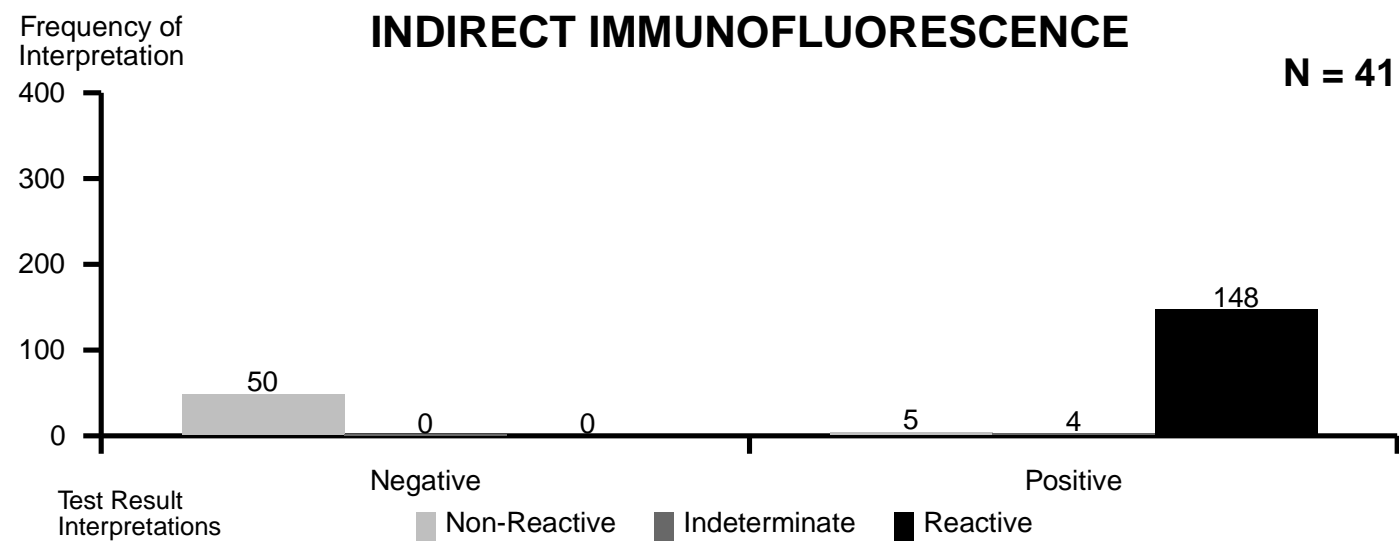
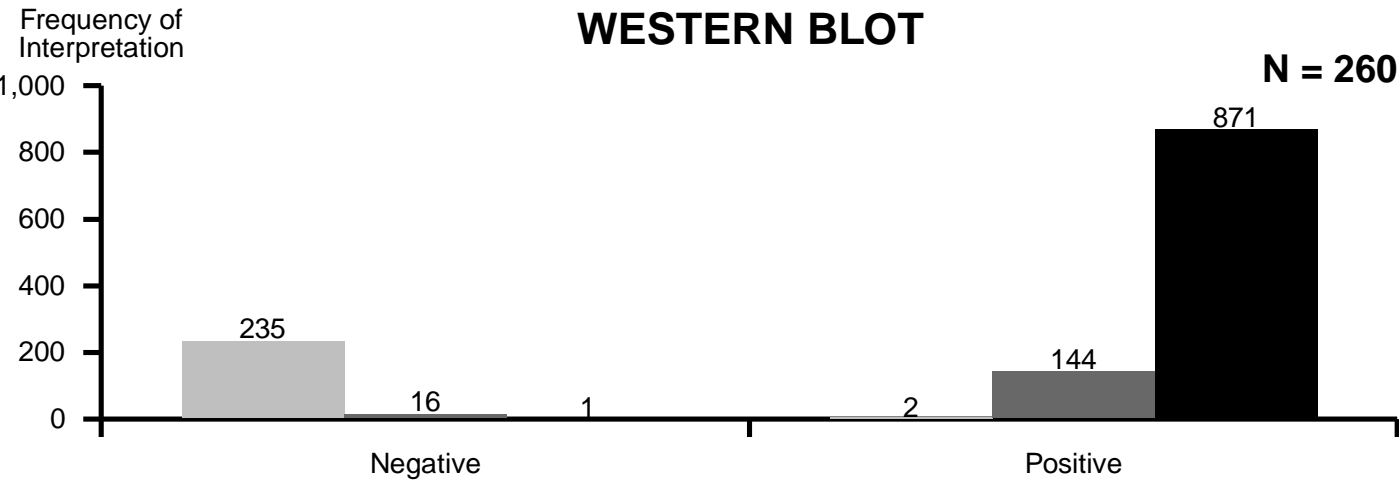


Figure 2. Percentage of HIV-1 participant laboratories, by laboratory type, that reported EIA, WB, and IIF results to the CDC for the January 27, 1997 shipment

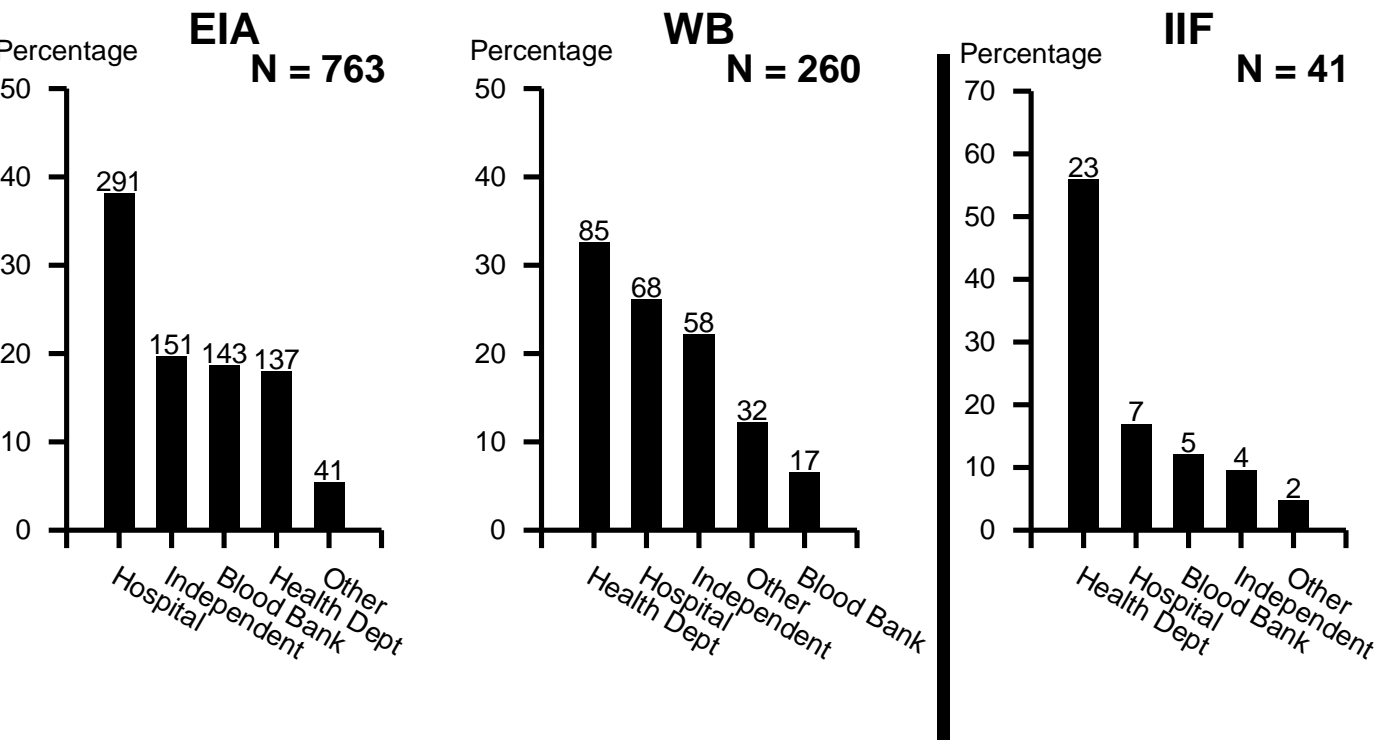


Figure 3. Combination of HIV-1 antibody tests reported by participant laboratories for the January 27, 1997 shipment

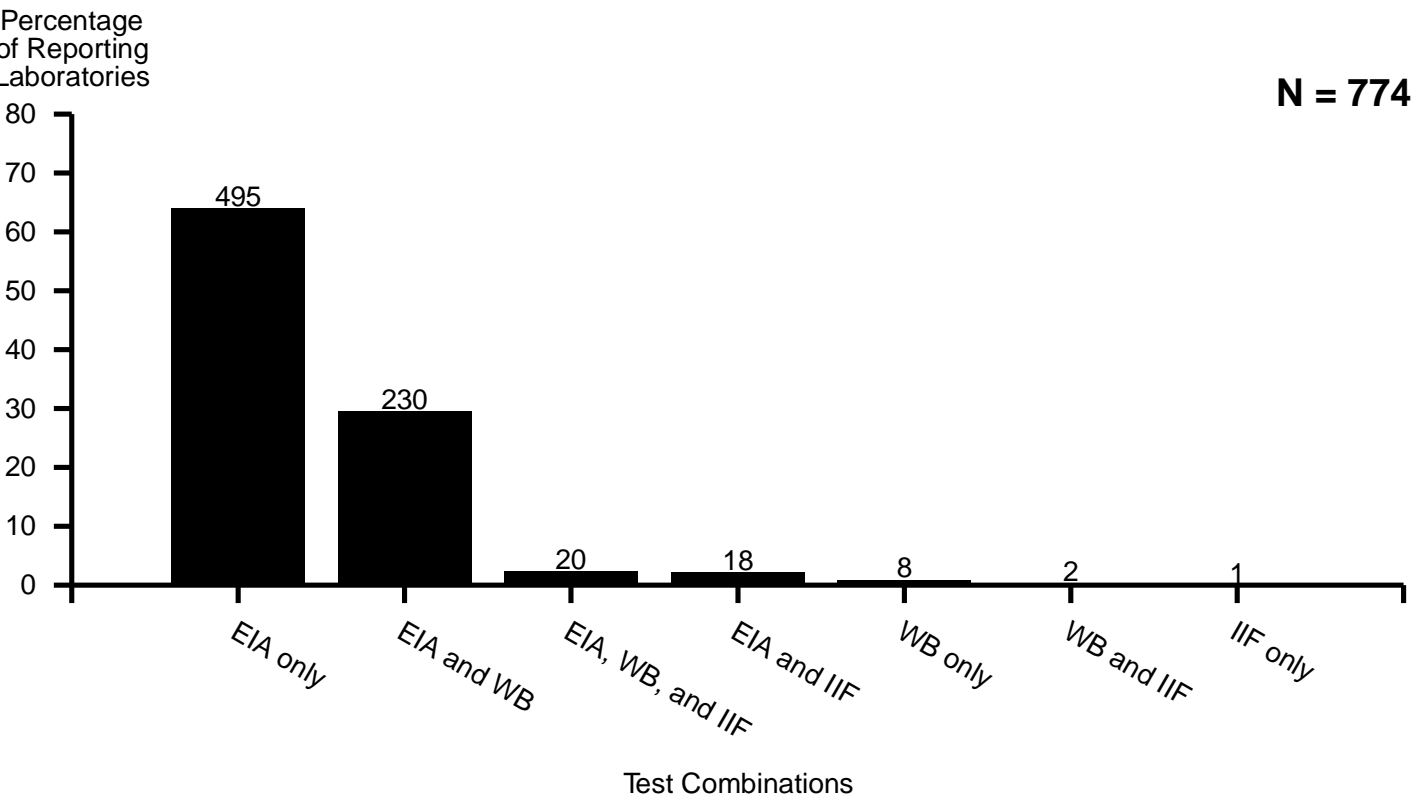


Figure 4. Types of HIV-1 antibody test kits used for enzyme immunoassay, Western blot, and indirect immunofluorescence, as reported by participant laboratories to the CDC for the January 27, 1997 shipment

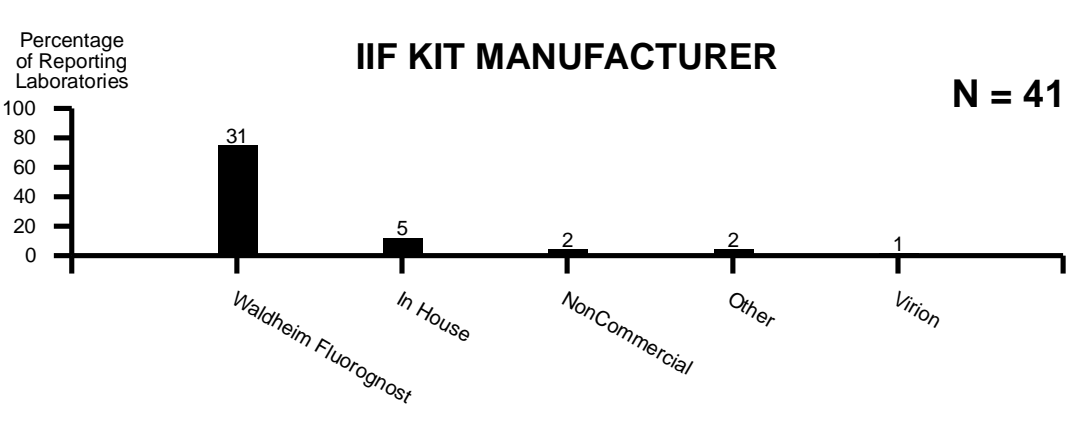
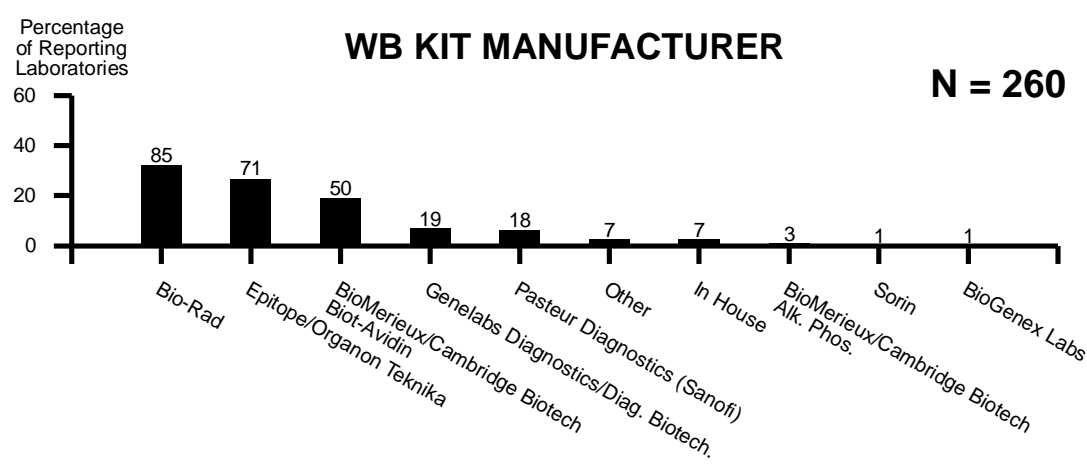
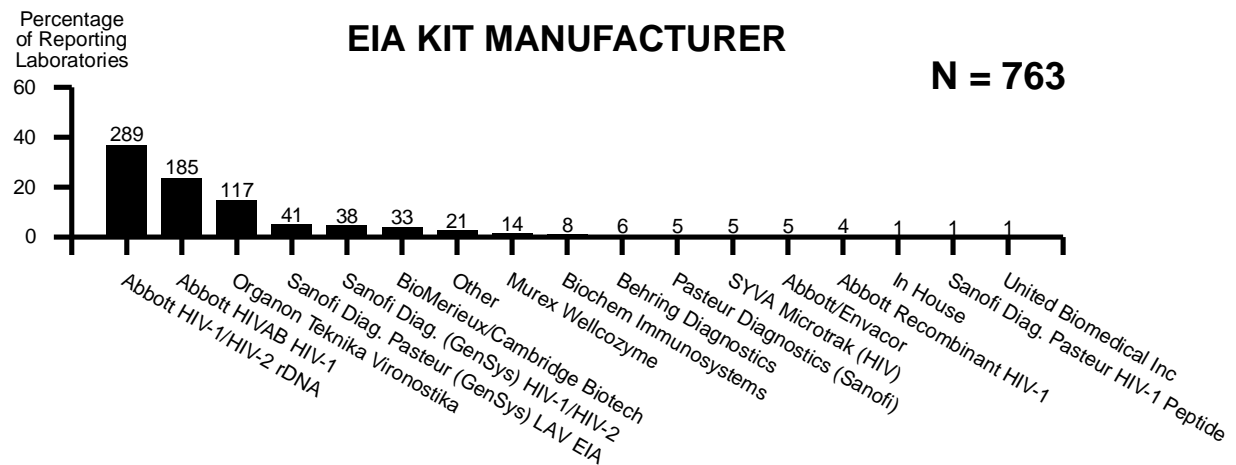
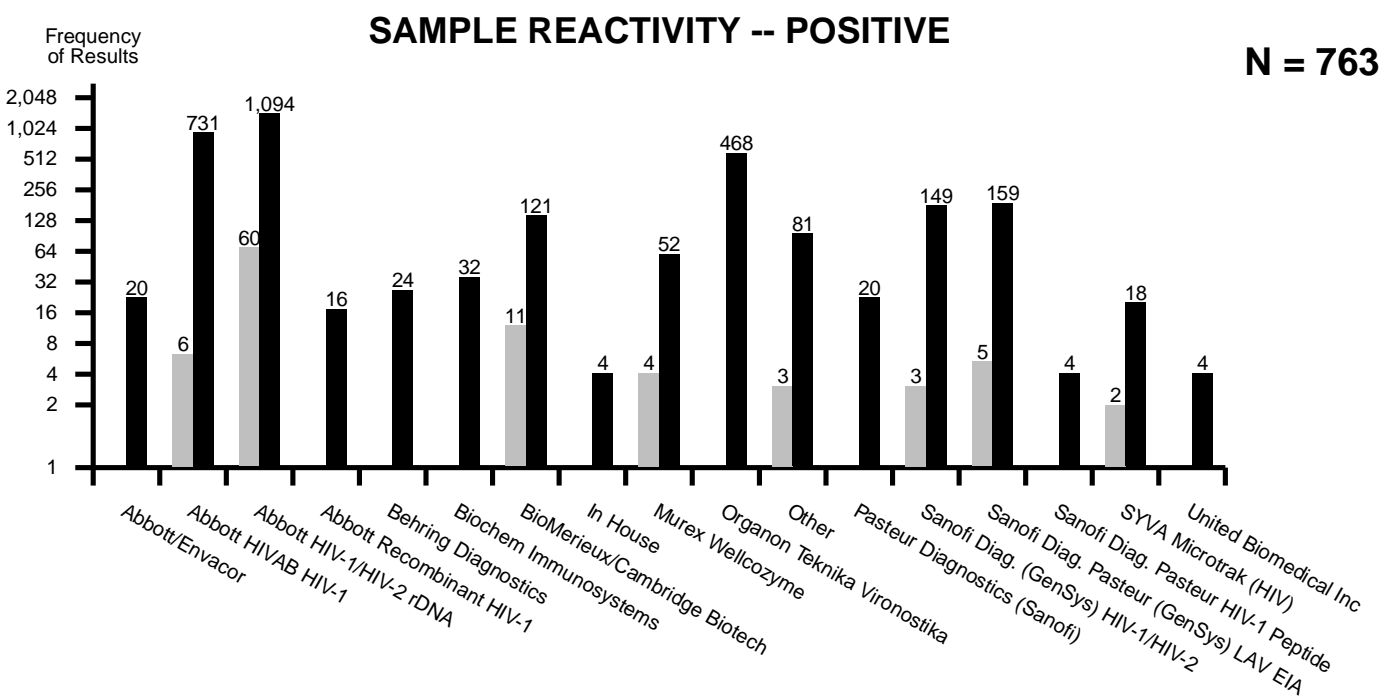
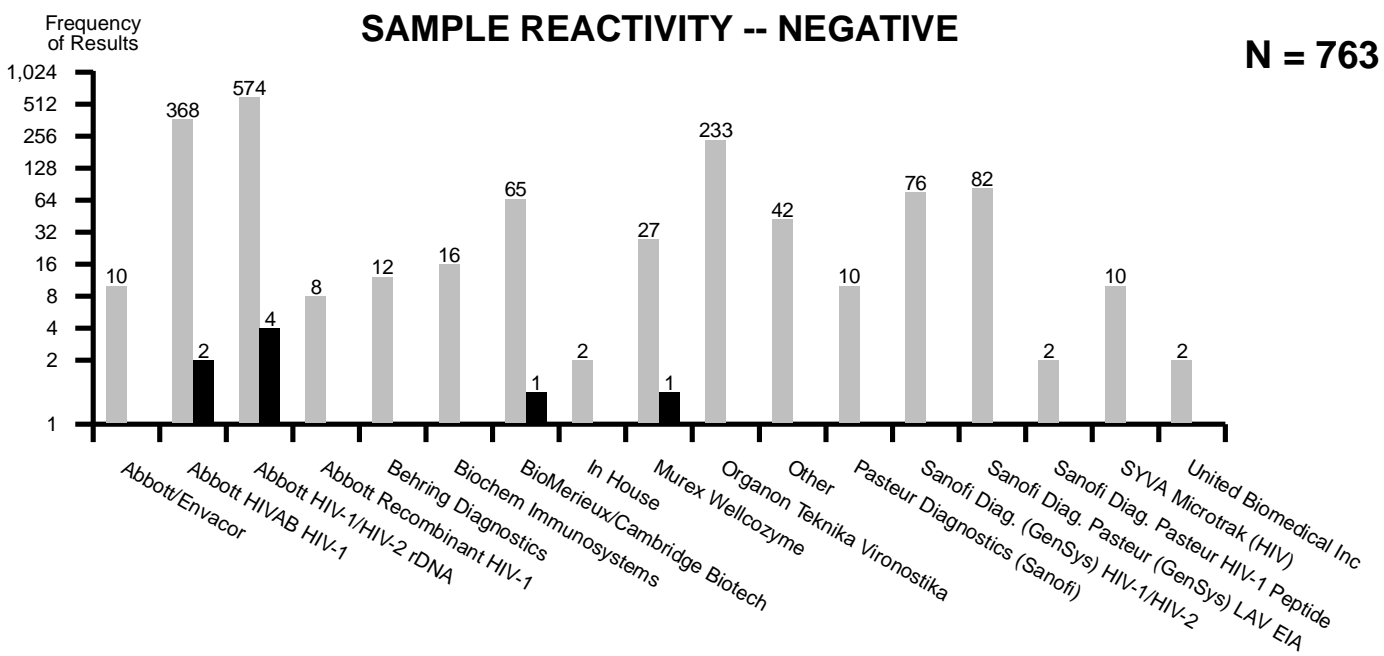


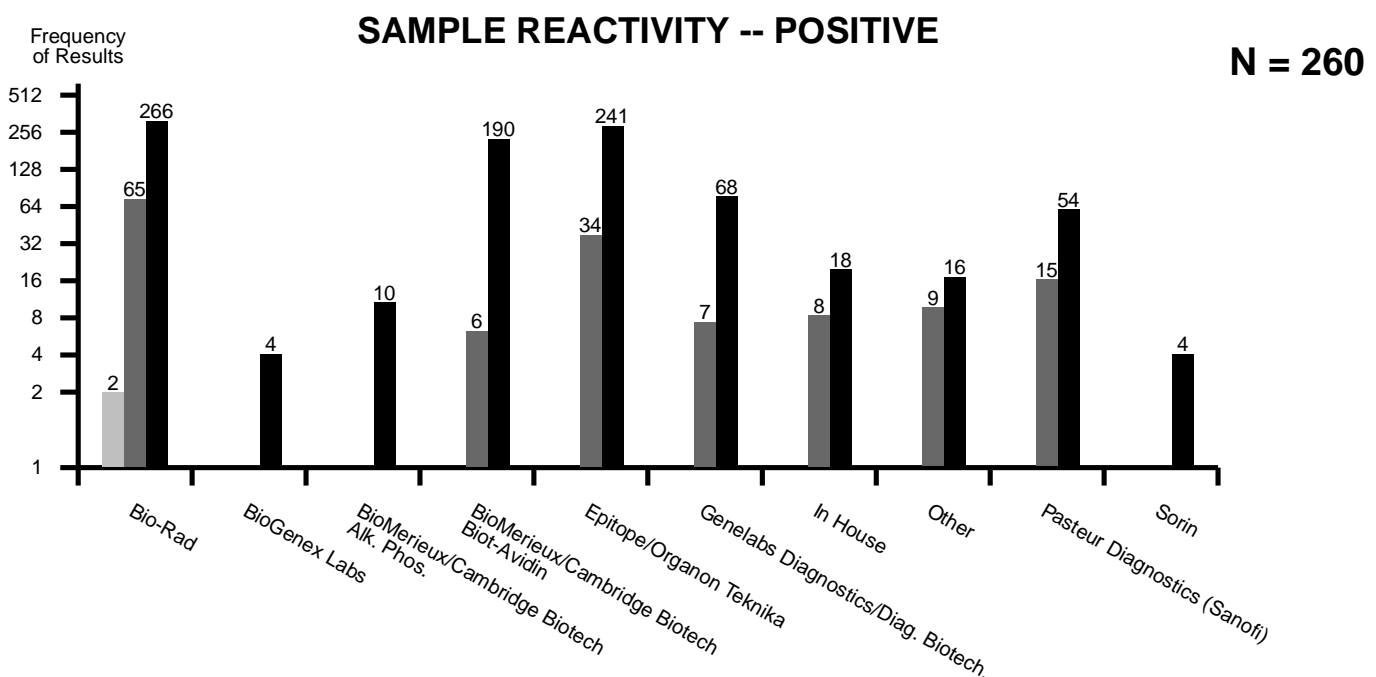
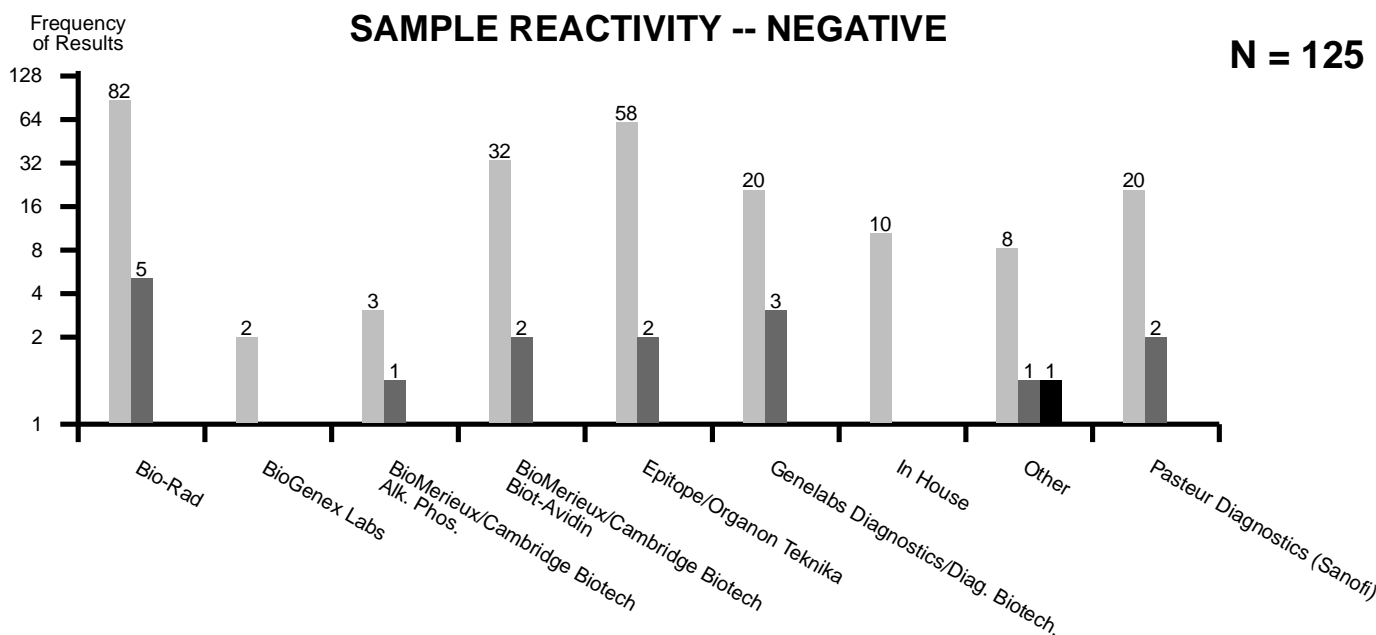
Figure 5. Enzyme immunoassay HIV-1 antibody test results, by kit manufacturer, reported by participant laboratories for the January 27, 1997 shipment



Test Result Interpretations

■ Non-Reactive ■ Reactive

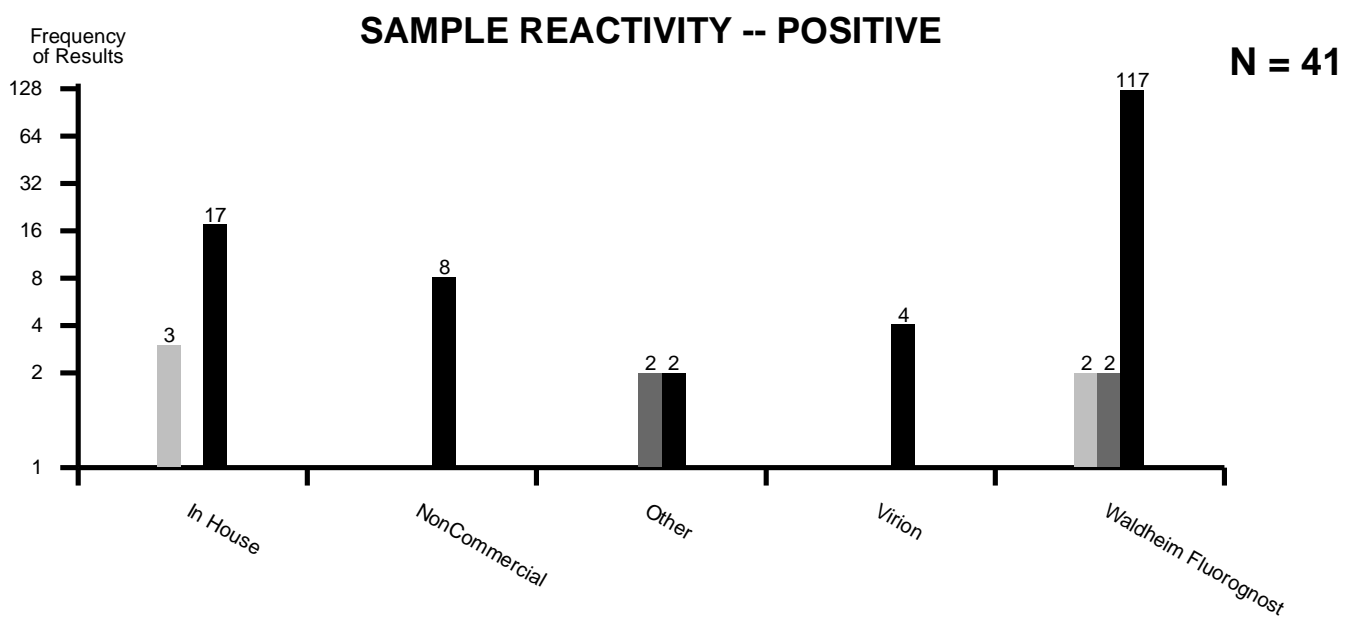
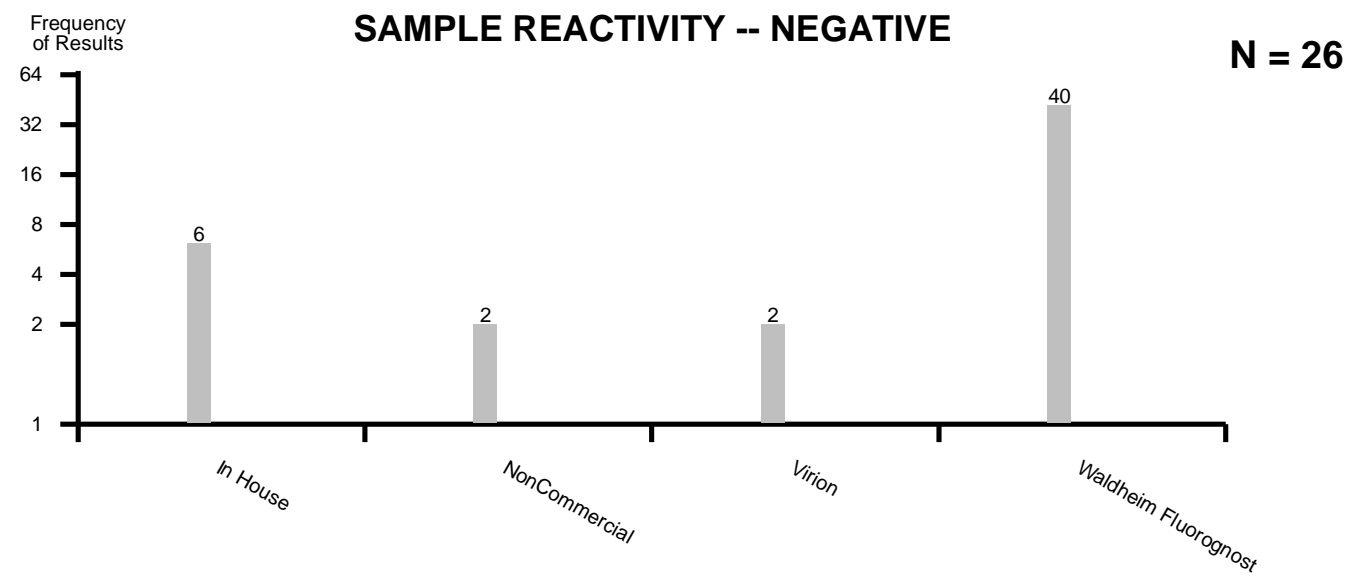
Figure 6. Western blot HIV-1 antibody test results, by kit manufacturer, reported by participant laboratories for the January 27, 1997 shipment



Test Result Interpretations

- Non-Reactive
- Indeterminate
- Reactive

Figure 7. Indirect immunofluorescence HIV-1 antibody test results, by kit manufacturer, reported by participant laboratories for the January 27, 1997 shipment



Test Result Interpretations

- Non-Reactive
- Indeterminate
- Reactive

Figure 8. Western blot HIV-1 antibody band patterns reported to CDC by participant laboratories for the January 27, 1997 shipment

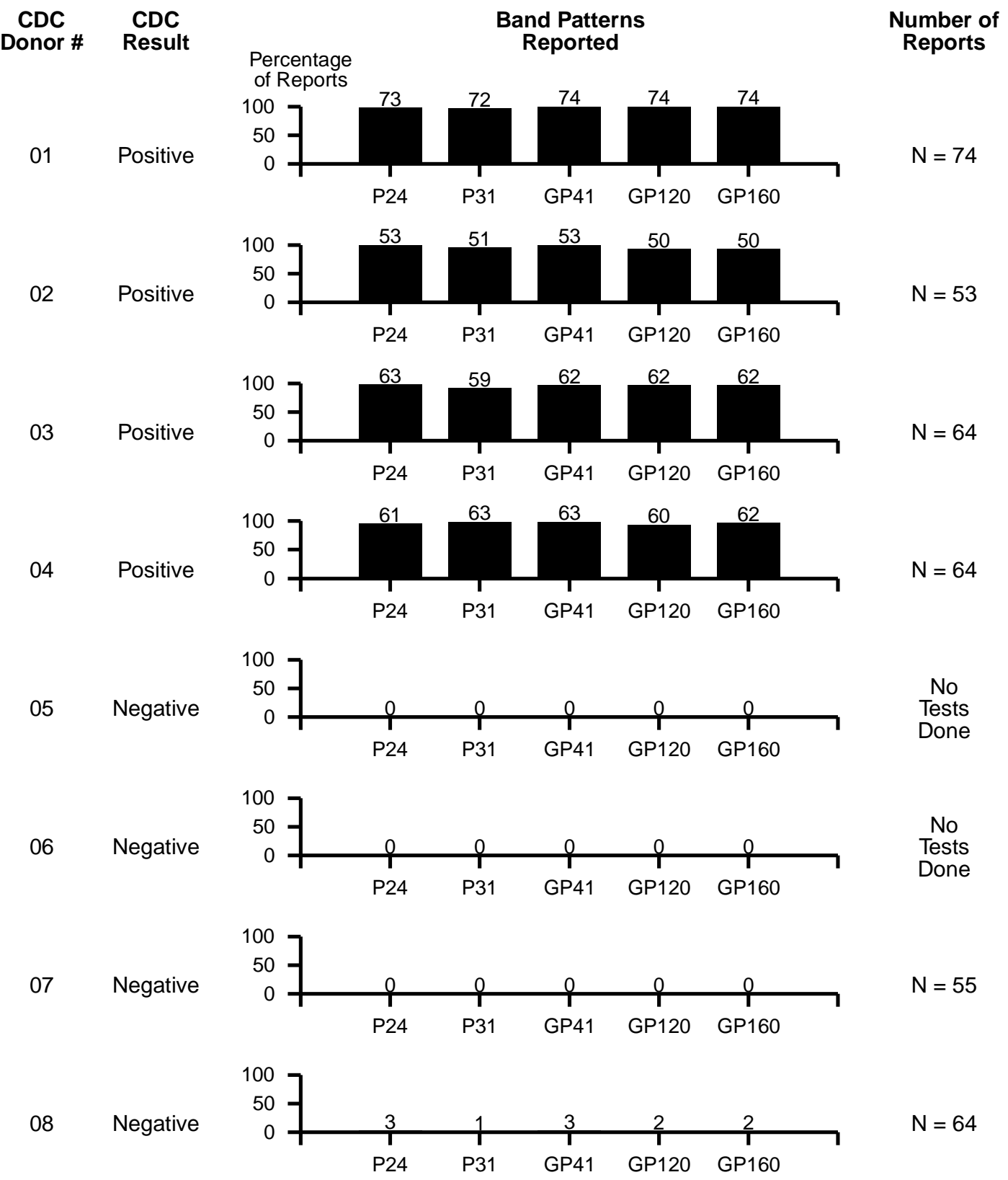


Figure 8. Western blot HIV-1 antibody band patterns reported to CDC by participant laboratories for the January 27, 1997 shipment

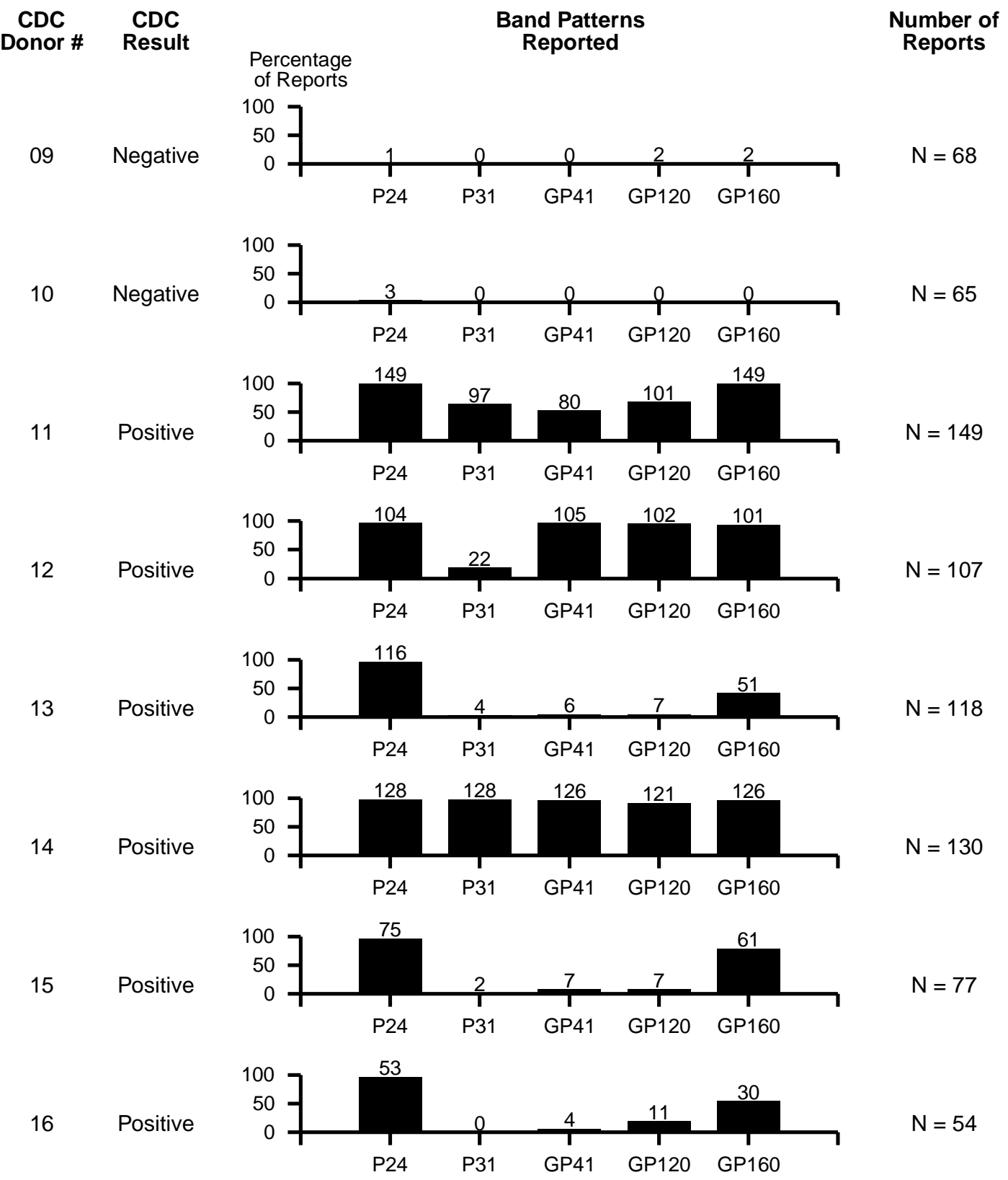


Figure 8. Western blot HIV-1 antibody band patterns reported to CDC by participant laboratories for the January 27, 1997 shipment

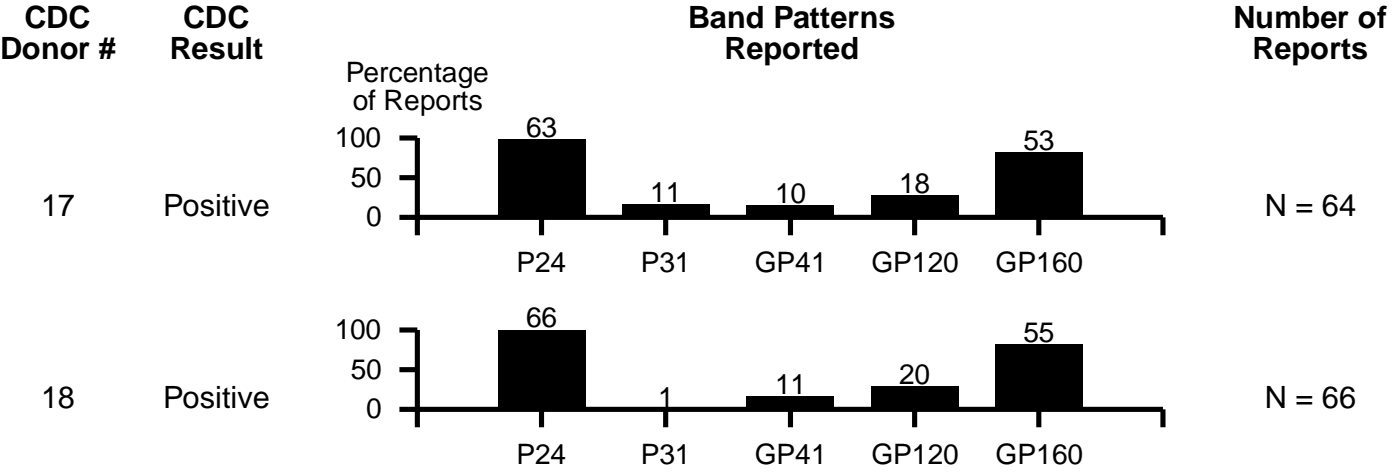


Figure 9. Fluorescence intensity patterns, of HIV-1-infected cells, for IIF results reported to CDC by participant laboratories for the January 27, 1997 shipment

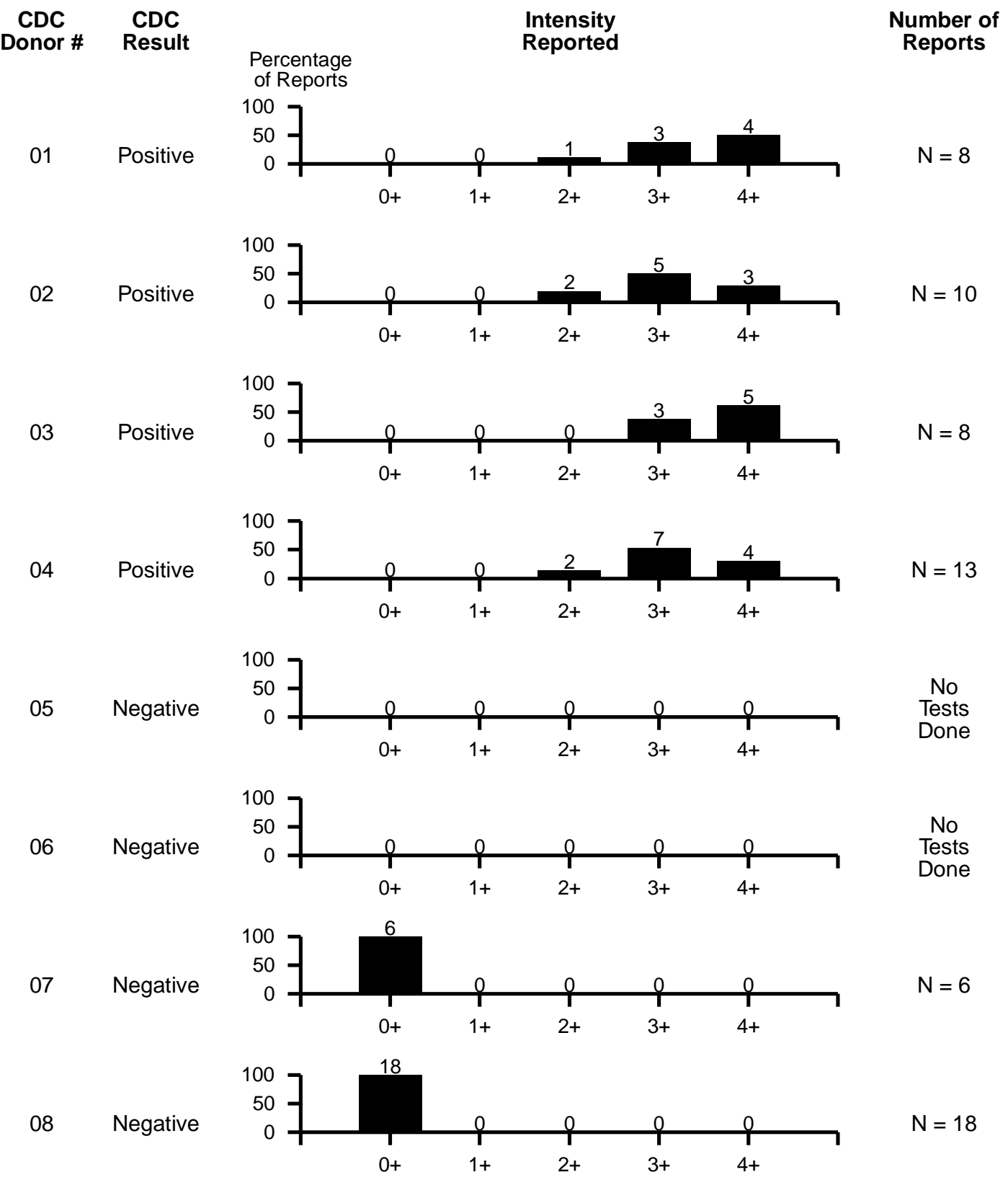


Figure 9. Fluorescence intensity patterns, of HIV-1-infected cells, for IIF results reported to CDC by participant laboratories for the January 27, 1997 shipment

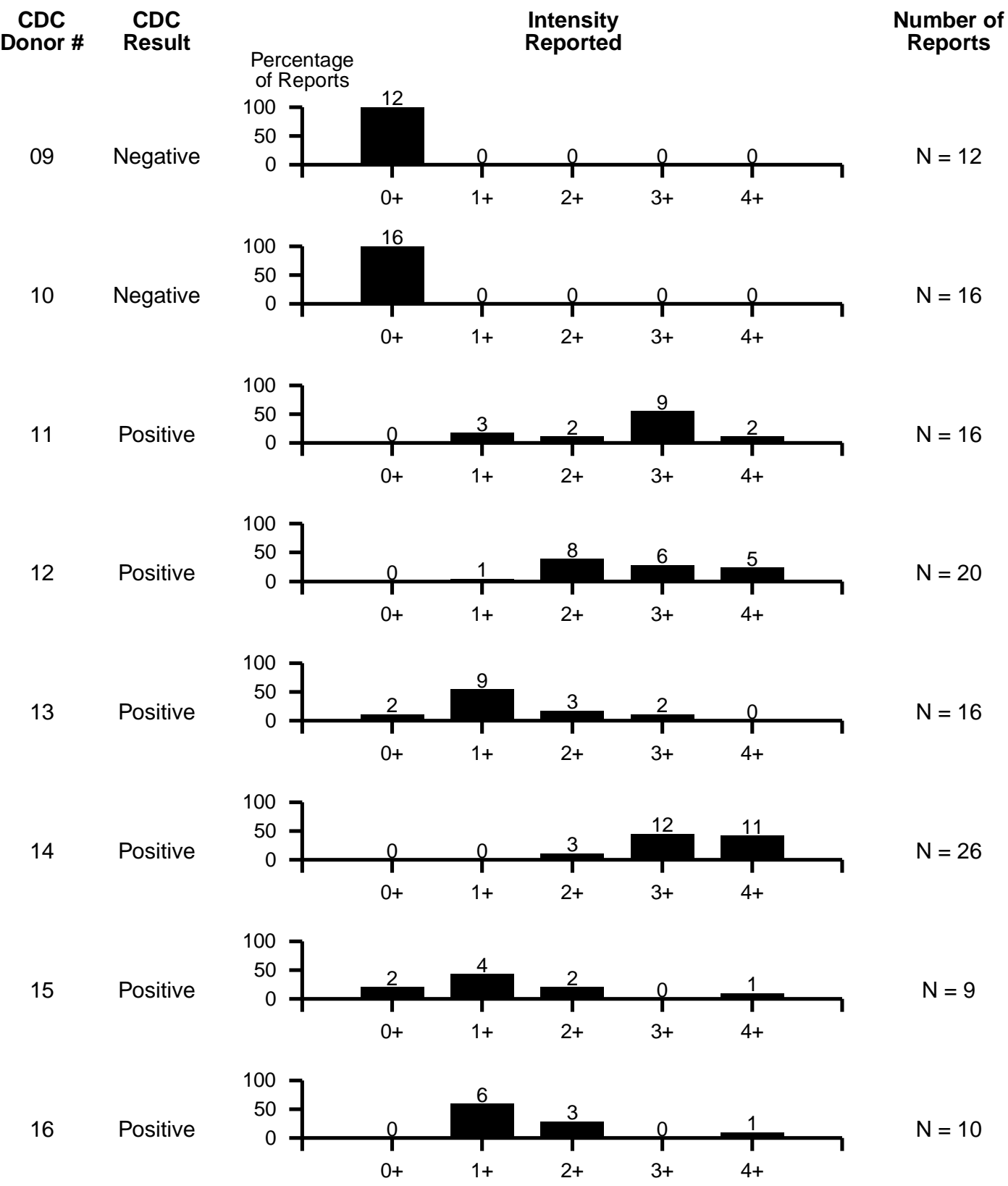


Figure 9. Fluorescence intensity patterns, of HIV-1-infected cells, for IIF results reported to CDC by participant laboratories for the January 27, 1997 shipment

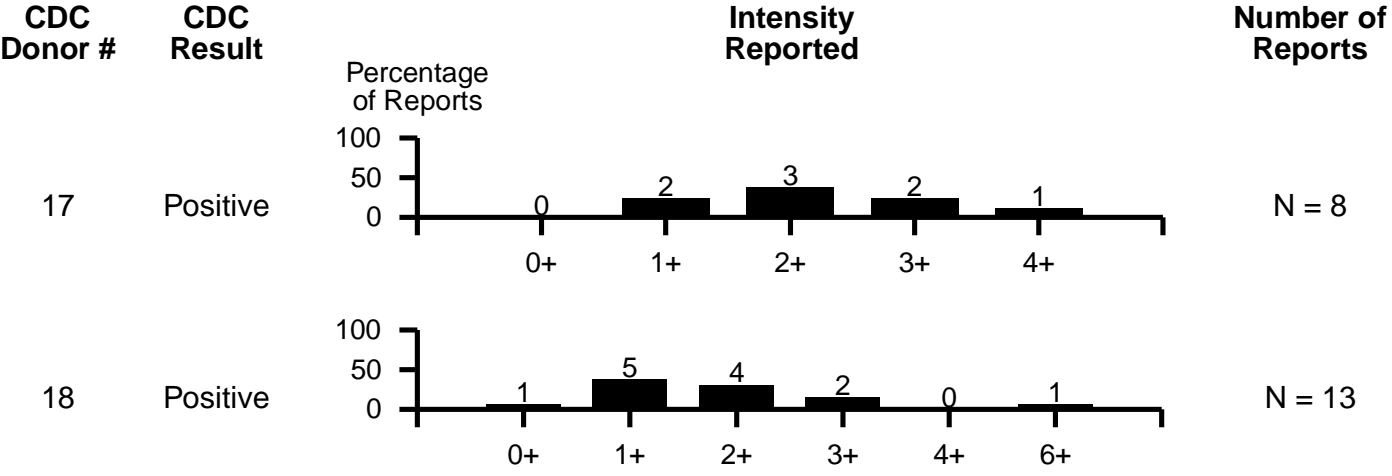
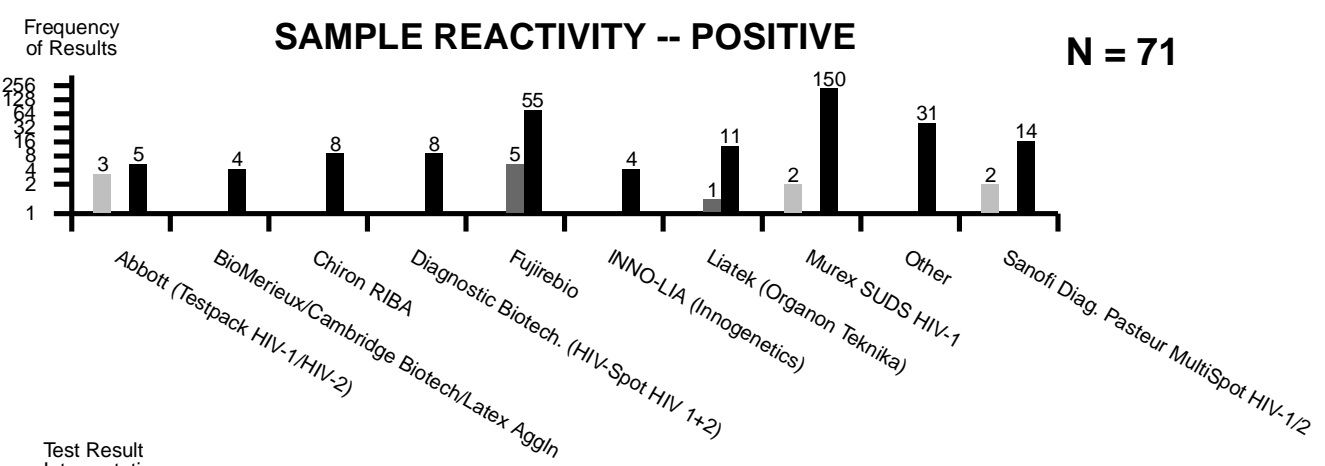
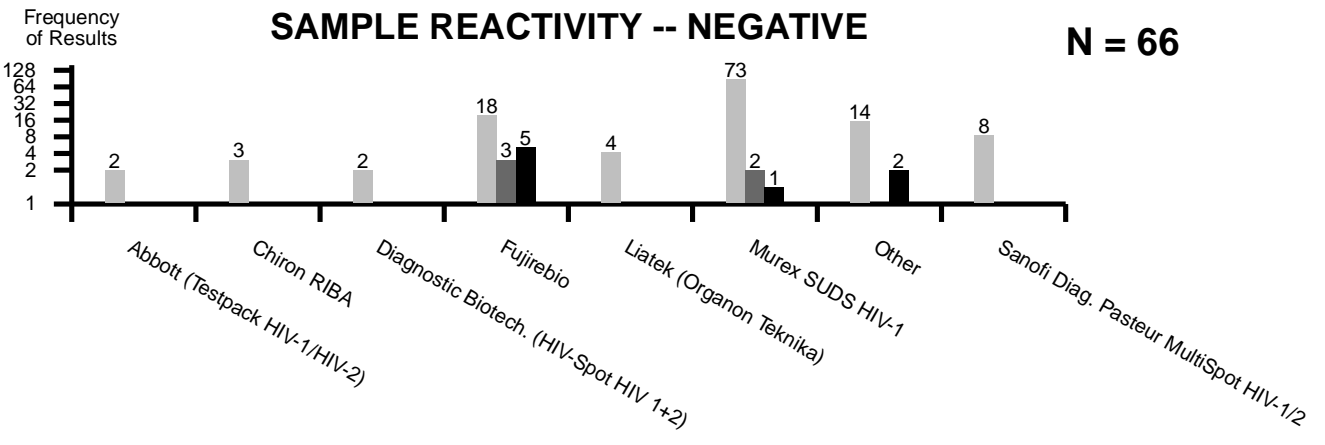
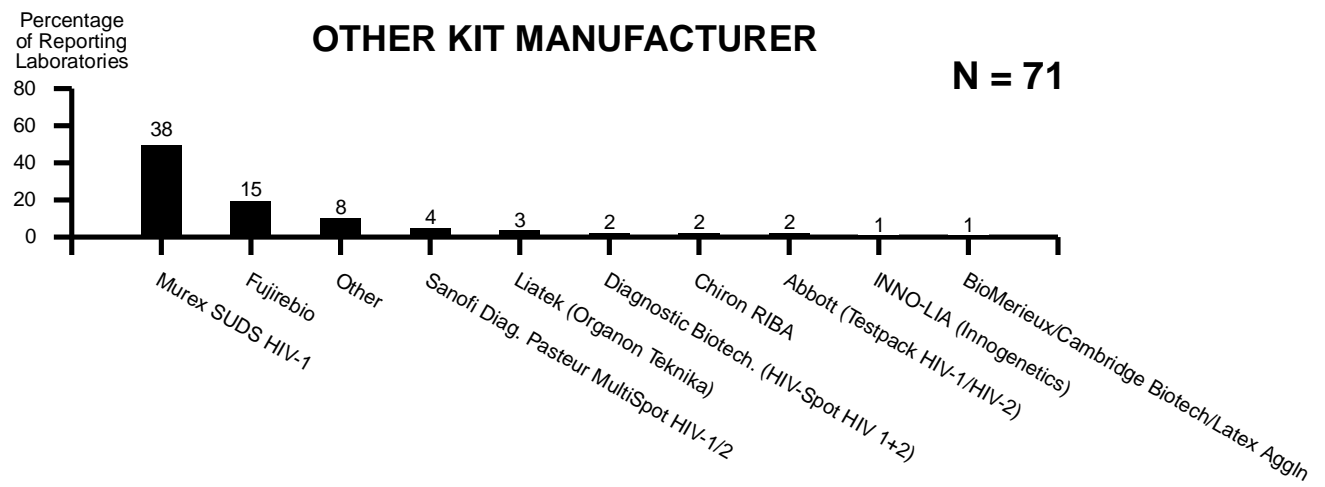


Figure 10. Types of 'Other' HIV antibody test kits used and results reported by participant laboratories to the CDC for the January 27, 1997 shipment



Test Result Interpretations

- Non-Reactive
- Indeterminate
- Reactive