

RESULTS

Titration of HSV seed :

- * HSV-I titre in vero cell culture was found to be $10^{5.6}$ TCD₅₀/ml.
- * HSV-II titre in vero cell culture was found to be $10^{7.5}$ TCD₅₀/ml.

Titration of HSV antigen :

HSV-I: Titration of HSV-I antigen was done using double fold dilution of antigen and five fold dilution of HSV-I antiserum. The dilution of choice was 1/50 for HSV-I antigen and 1/50 for HSV-I antiserum.

HSV-II: Titration of HSV-II antigen was done using double fold dilution of antigen and five fold dilution of HSV-II antiserum. The dilution of choice was 1/50 for HSV-II antigen and 1/10 for HSV-II antiserum.

Detection of HSV specific immunoglobulins in serum and saliva :

An ELISA technique was performed to detect herpes simplex virus specific immunoglobulins (IgA,

IgG and IgM) in both serum and saliva in two groups of individuals and the results obtained were as follows :

1- The first group:

Antibodies to HSV-type-I in serum and saliva were determined in 61 apparently healthy children aged between 6 and 24 months.

- It was found that HSV-I specific IgA is the most common immunoglobulin in saliva (73.8%) followed by IgG (8.2%) then IgM (1.6%) as shown in Tables (1 and 5) and Figs. (4,6 and 8).

- In serum samples, the most common immunoglobulin detected was HSV-I specific IgG (100%) followed by IgA (88.5%) then IgM (63.9%) as shown in Tables (1 and 5) and Figs. (3, 5 and 7).

2- The second group :

Antibodies to HSV type-II in serum and saliva were determined in 64 apparently healthy adults aged between 16 and 24 years. It was found that HSV-II specific IgA is the most common immunoglobulin

detected in saliva samples (100%) followed by IgM (34.4%) then IgG (32.8%) as shown in Tables (2 and 6) and Figs. (10, 12 and 14).

- In serum samples, the most common HSV-II specific immunoglobulin detected was IgG (98.4%) followed by IgM (90.6%) then IgA (87.5%) as shown in Tables (2 and 6) and Figs. (9,11 and 13).

- The prevalence of HSV-I & II specific antibodies was nearly similar at different ages in the same age group as shown in Tables (3 and 4).

- The highest immunoglobulin detected in both serum and saliva was HSV specific IgA (68.9% for the first group and 87.5% for the second group) followed by HSV specific IgG (8.2% for the first group and 31.3% for the second group) then HSV specific IgM (1.6% for the first group and 31.3% for the second group) as shown in Figs. (1 and 2).

Table (1): Detection of anti-HSV type I specific immunoglobulins in serum and saliva among children aged between 6-24 months by ELISA technique.

Ig. Results of test	Serum			Saliva		
	IgA	IgM	IgG	IgA	IgM	IgG
No. +ve cases	54	39	61	45	1	5
No. -ve cases	7	22	zero	16	60	56
% +ve cases	88.5	63.9	100	73.8	1.6	8.2

Table (2): Detection of anti-HSV type II specific immunoglobulins in serum and saliva among adults aged between 16-24 years by ELISA technique.

Ig. Results of test	Serum			Saliva		
	IgA	IgM	IgG	IgA	IgM	IgG
No. +ve cases	56	58	63	64	22	21
No. -ve cases	8	6	1	zero	42	43
% +ve cases	87.5	90.6	98.4	100	34.4	32.8

Table (3): Age distribution of HSV-I specific IgA, IgM and IgG seropositive children.

Age group	No.	Positive serum Ig.						Positive saliva Ig.					
		IgA		IgM		IgG		IgA		IgM		IgG	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
6-12 m.	42	39	92.9	29	69	42	100	34	81	0.0	0.0	5.0	11.9
13-18 m.	5	3	60.0	3	60	5	100	4	80	0.0	0.0	0.0	0.0
19-24m.	14	12	85.7	7	50	14	100	7	50	1.0	7.14	0.0	0.0

Table (4): Age distribution of HSV-II specific IgA, IgM and IgG seropositive adults.

Age group	No.	Positive serum Ig.						Positive saliva Ig.					
		IgA		IgM		IgG		IgA		IgM		IgG	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
16-19 y.	48	43	89.6	42	87.5	48	100	48	100	16	33.3	16	33.3
20-23 y.	14	13	92.9	14	100	13	92.9	14	100	6	42.9	4	28.6
> 23 y.	2	0	0.0	2	100	2	100	2	100	0	0.0	1	50

Table (5): Detection of HSV type I immunoglobulins in serum and saliva among children aged between 6-24 months .

Case No.	Serum			Saliva		
	IgA	IgM	IgG	IgA	IgM	IgG
1	+	+	+	+	-	-
2	+	+	+	+	+	-
3	+	-	+	+	-	-
4	+	-	+	-	-	-
5	+	-	+	-	-	-
6	+	-	+	-	-	+
7	-	+	+	-	-	-
8	+	-	+	+	-	-
9	-	-	+	+	-	-
10	-	-	+	-	-	-
11	+	-	+	+	-	-
12	+	-	+	-	-	-
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15	+	+	+	+	-	-
16	-	-	+	-	-	-
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57	+	+	+	+	-	-
58	+	+	+	+	-	-
59	+	+	+	+	-	-
60	+	+	+	+	-	+
61	+	+	+	+	-	-

Table (6): Detection of HSV type II immunoglobulins in serum and saliva among adults aged between 16-24 years .

Case No.	Serum			Saliva		
	IgA	IgM	IgG	IgA	IgM	IgG
1	+	+	+	+	-	+
2	+	+	+	+	-	-
3	+	+	+	+	-	-
4	+	+	+	+	+	-
5	+	+	+	+	-	-
6	+	+	+	+	-	-
7	+	+	+	+	-	-
8	+	+	+	+	-	-
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11	+	+	+	+	+	+
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42	+	+	+	+	+	-
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63	+	+	+	+	-	-
64	+	+	+	+	-	+

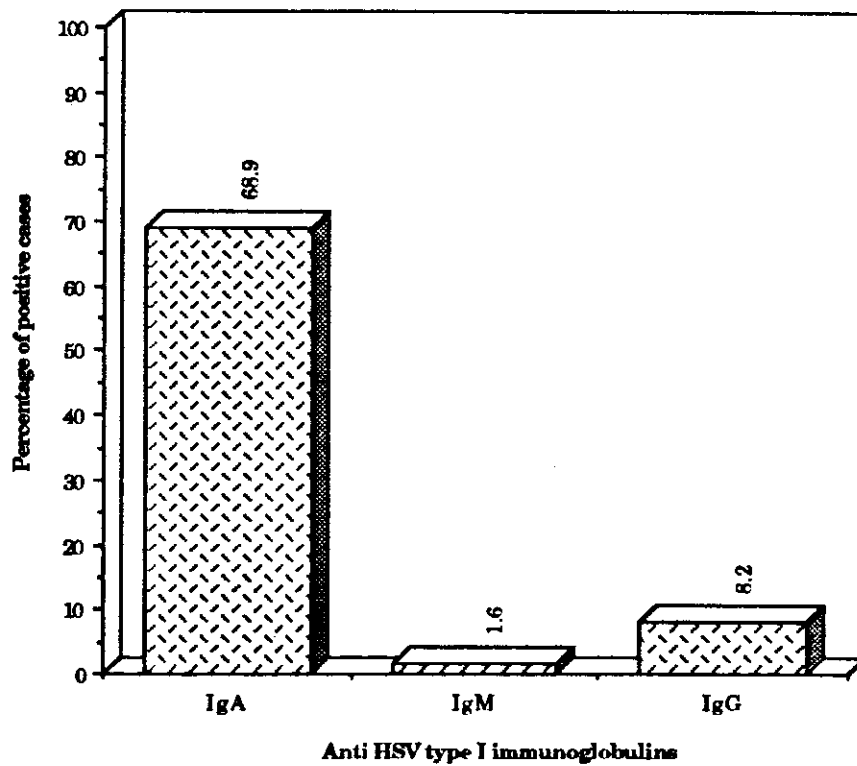


Fig. (1): Incidence of HSV-I immunoglobulins (IgA, IgM and IgG) among children aged between 6-24 months in serum and saliva using ELISA technique.

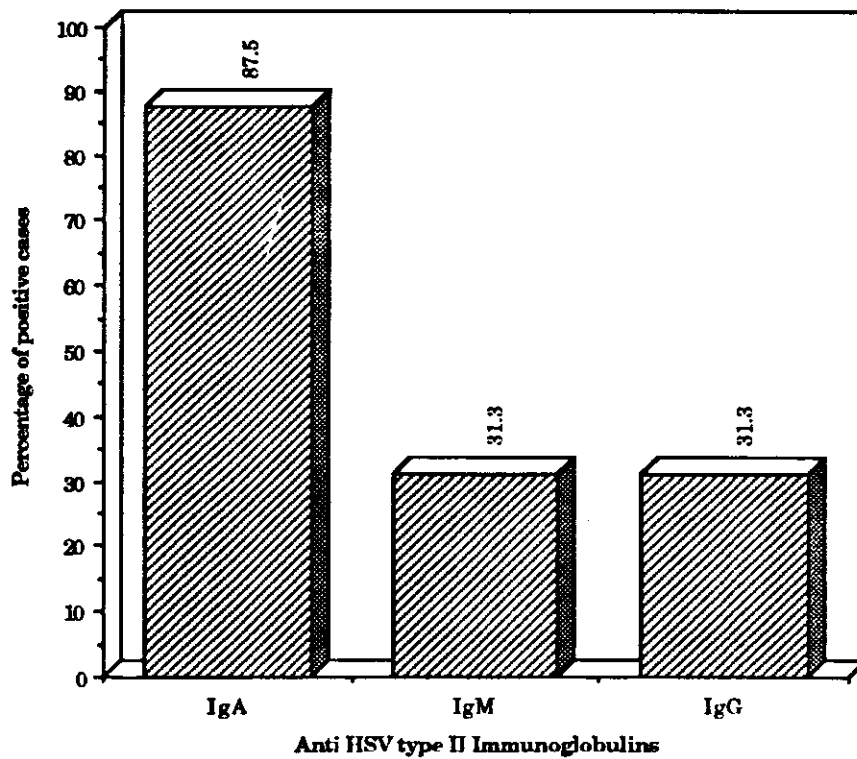


Fig. (2): Incidence of HSV-II immunoglobulins (IgA, IgM and IgG) among adults aged between 16-24 years in serum and saliva using ELISA technique.

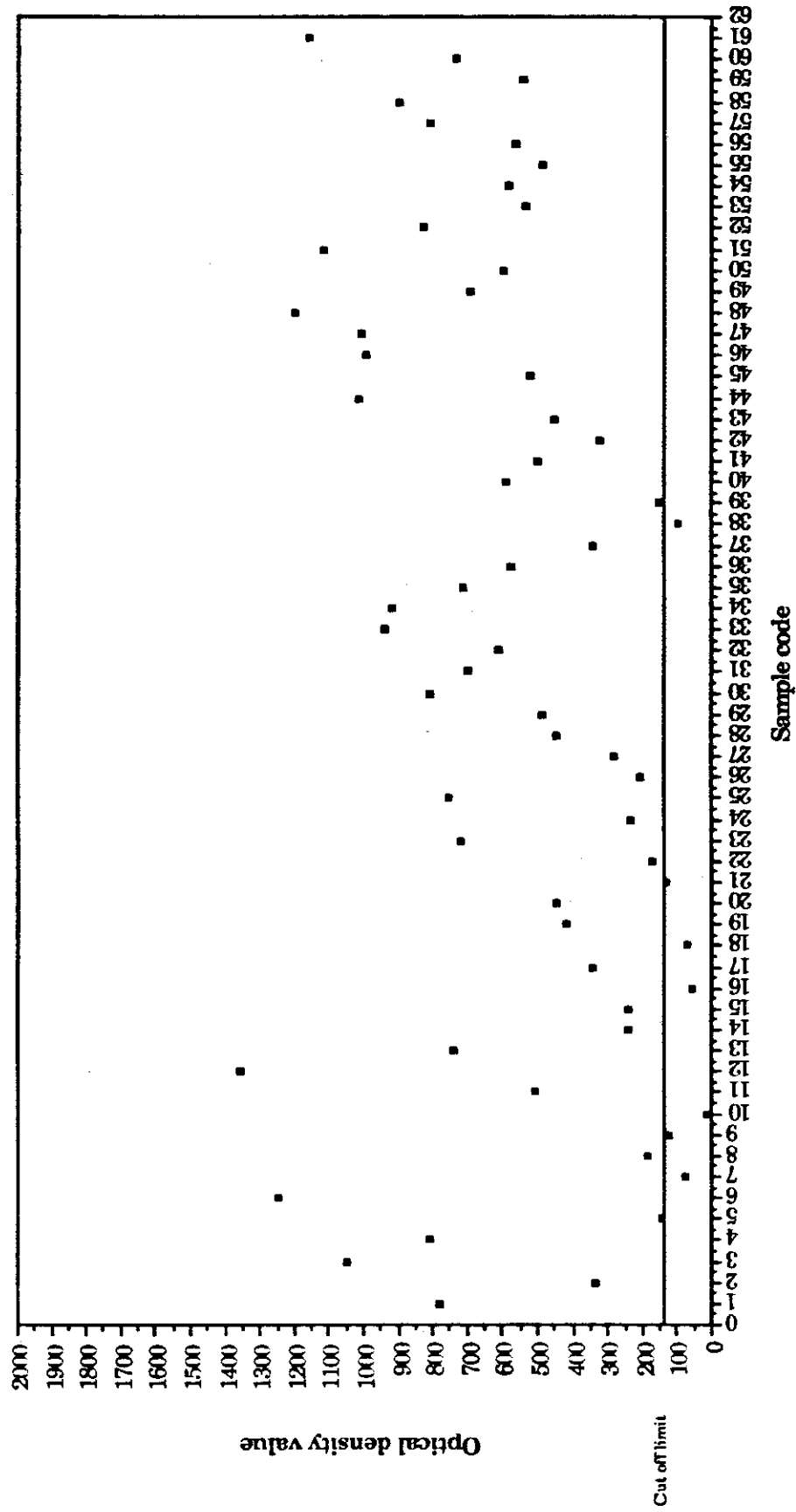


Fig. (3): Detection of anti-HSV-I specific IgA in serum among children aged between 6-24 months by ELISA test.

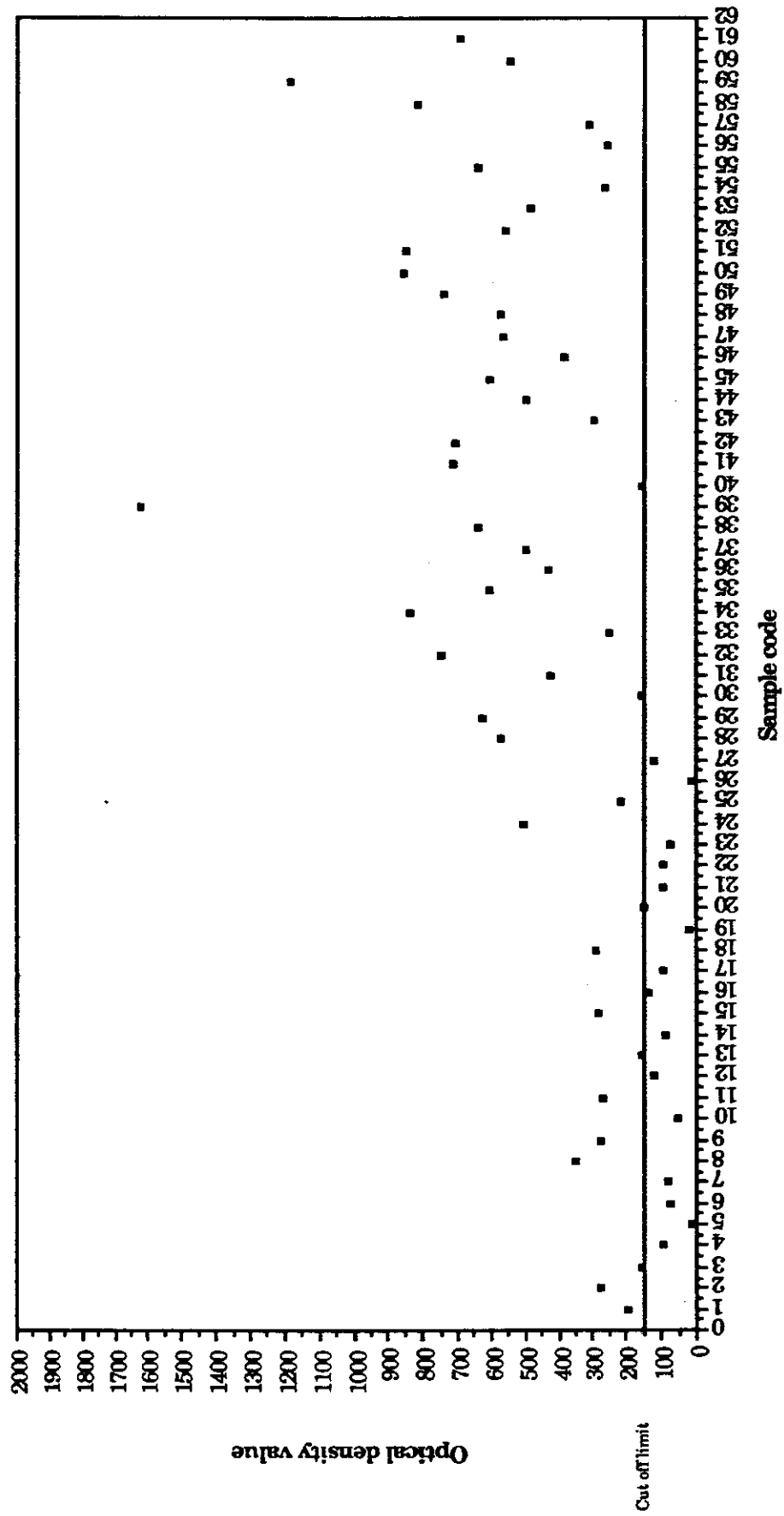


Fig. (4): Detection of anti-HSV-I specific IgA in saliva among children aged between 6-24 months by ELISA test.

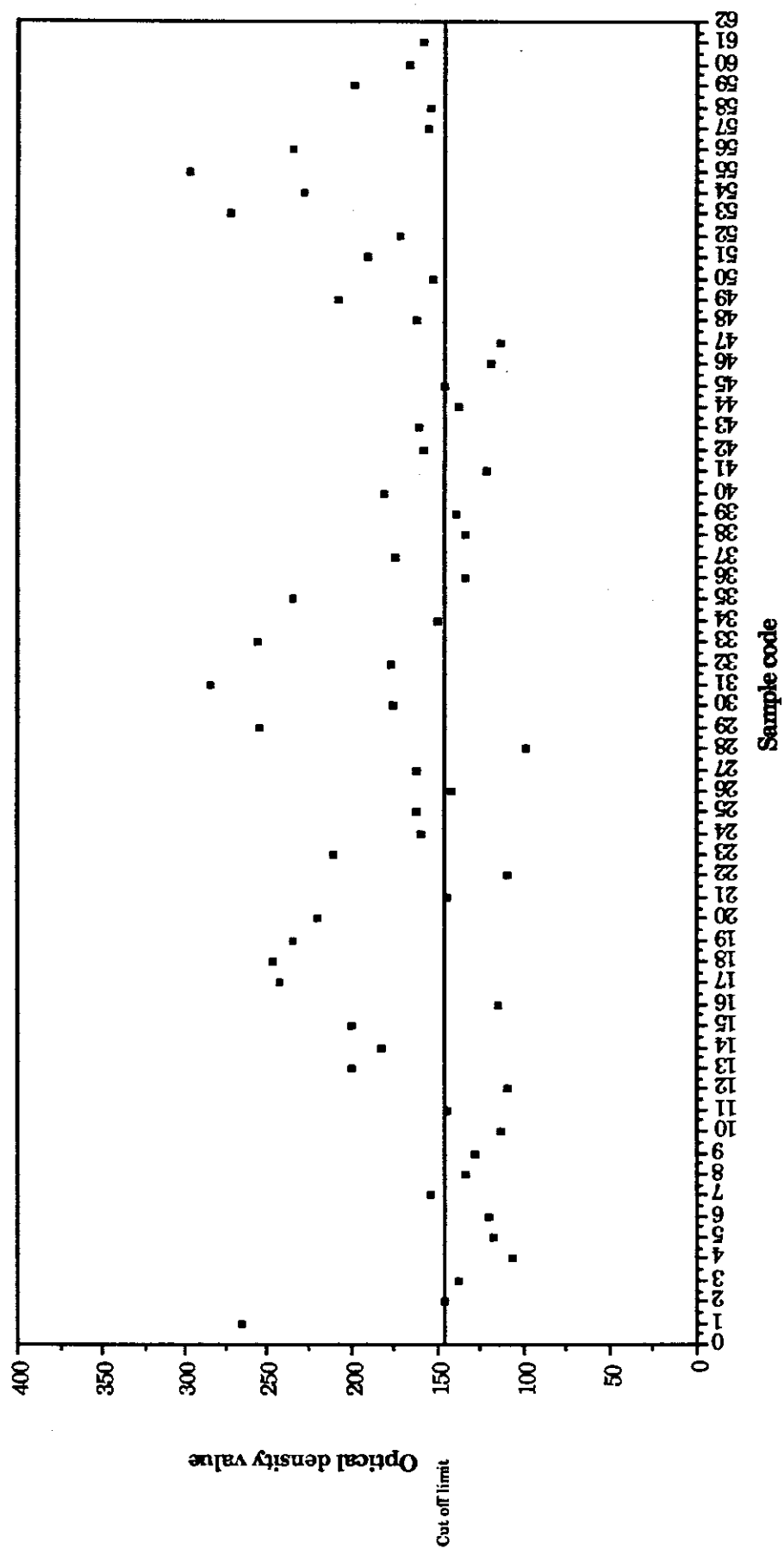


Fig. (5): Detection of anti-HSV-I specific IgM in serum among children aged between 6-24 months by ELISA test.

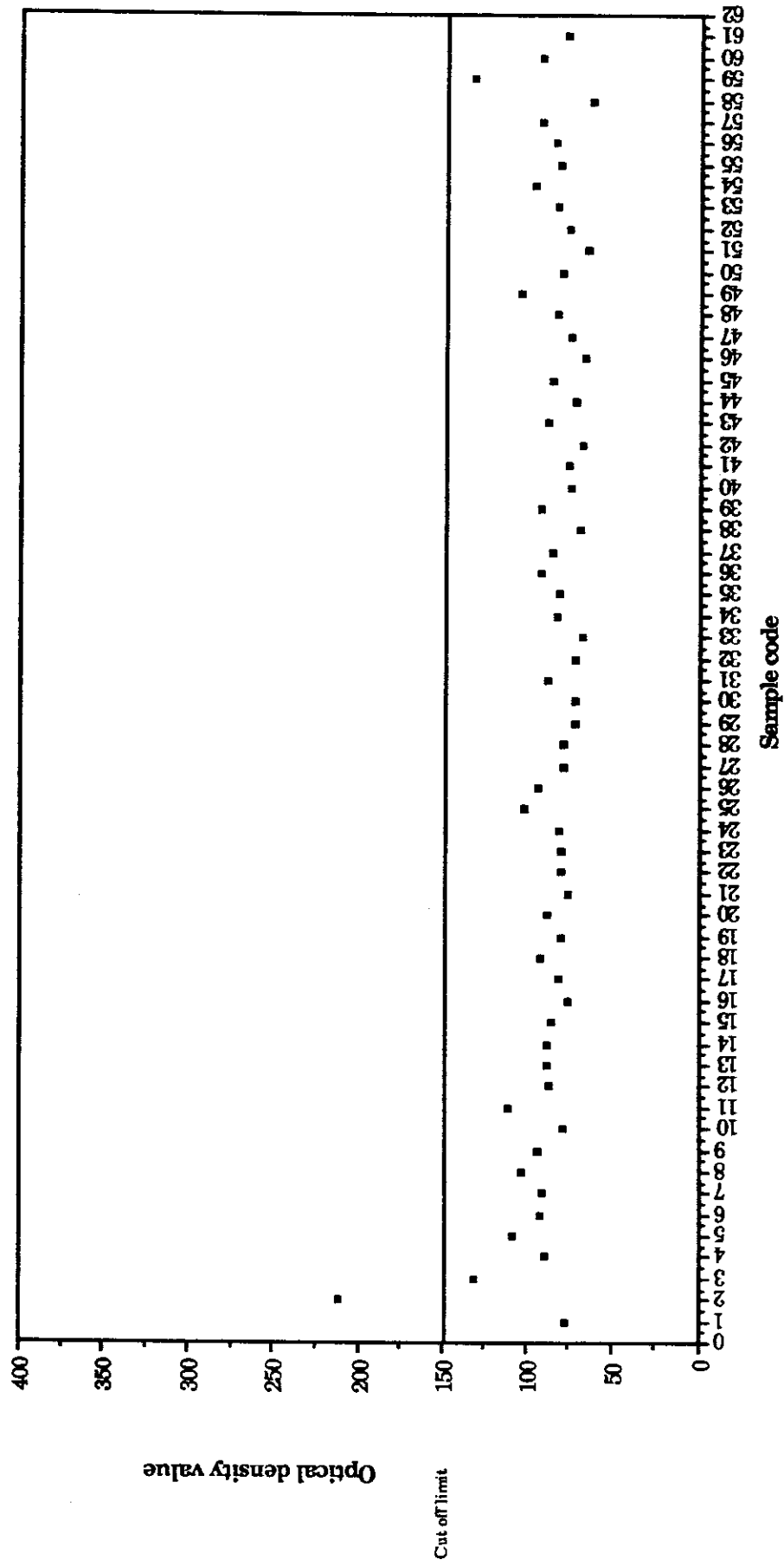


Fig. (6): Detection of anti-HSV-I specific IgM in saliva among children aged between 6-24 months by ELISA test.

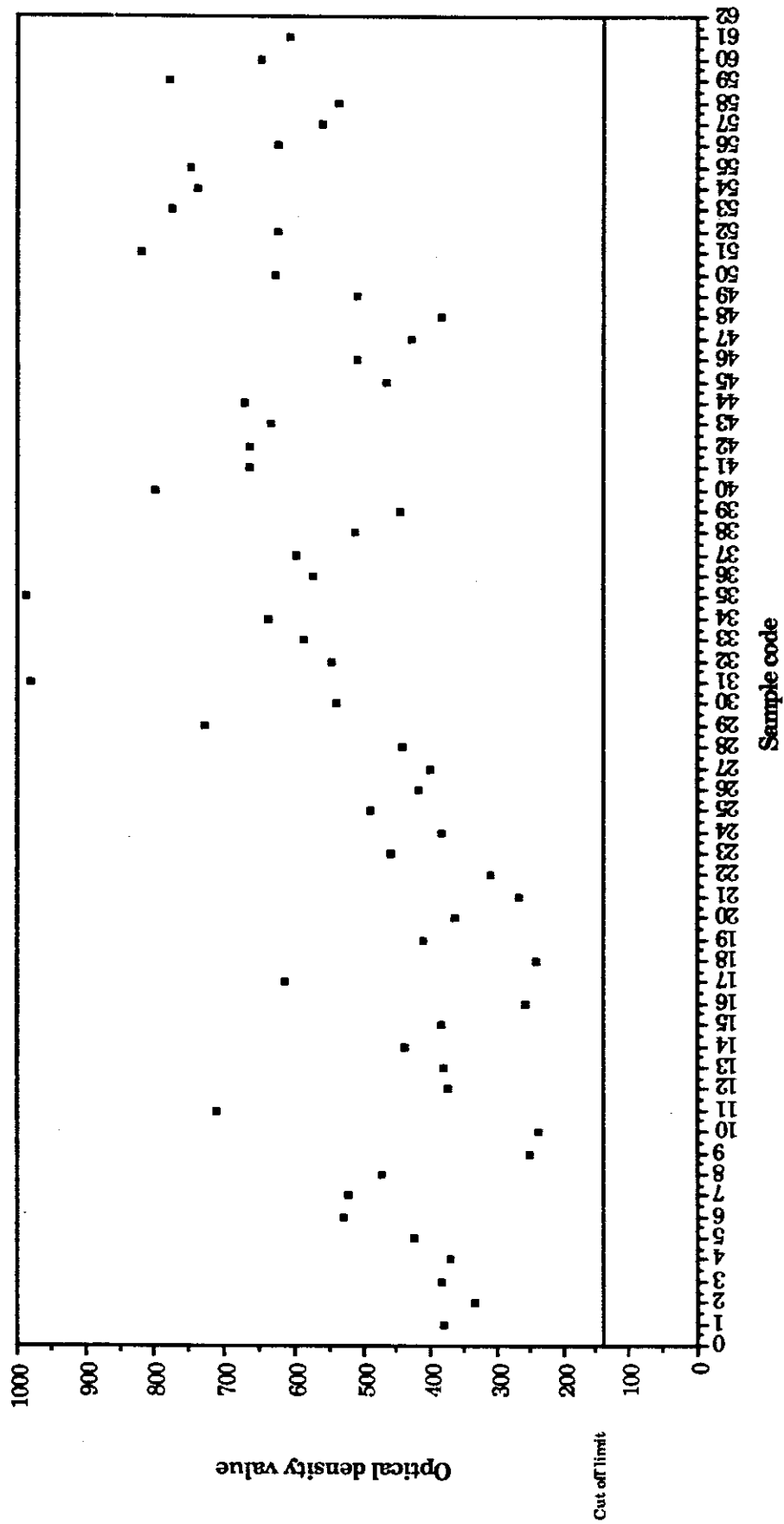


Fig. (7): Detection of anti-HSV-I specific IgG in serum among children aged between 6-24 months by ELISA test.

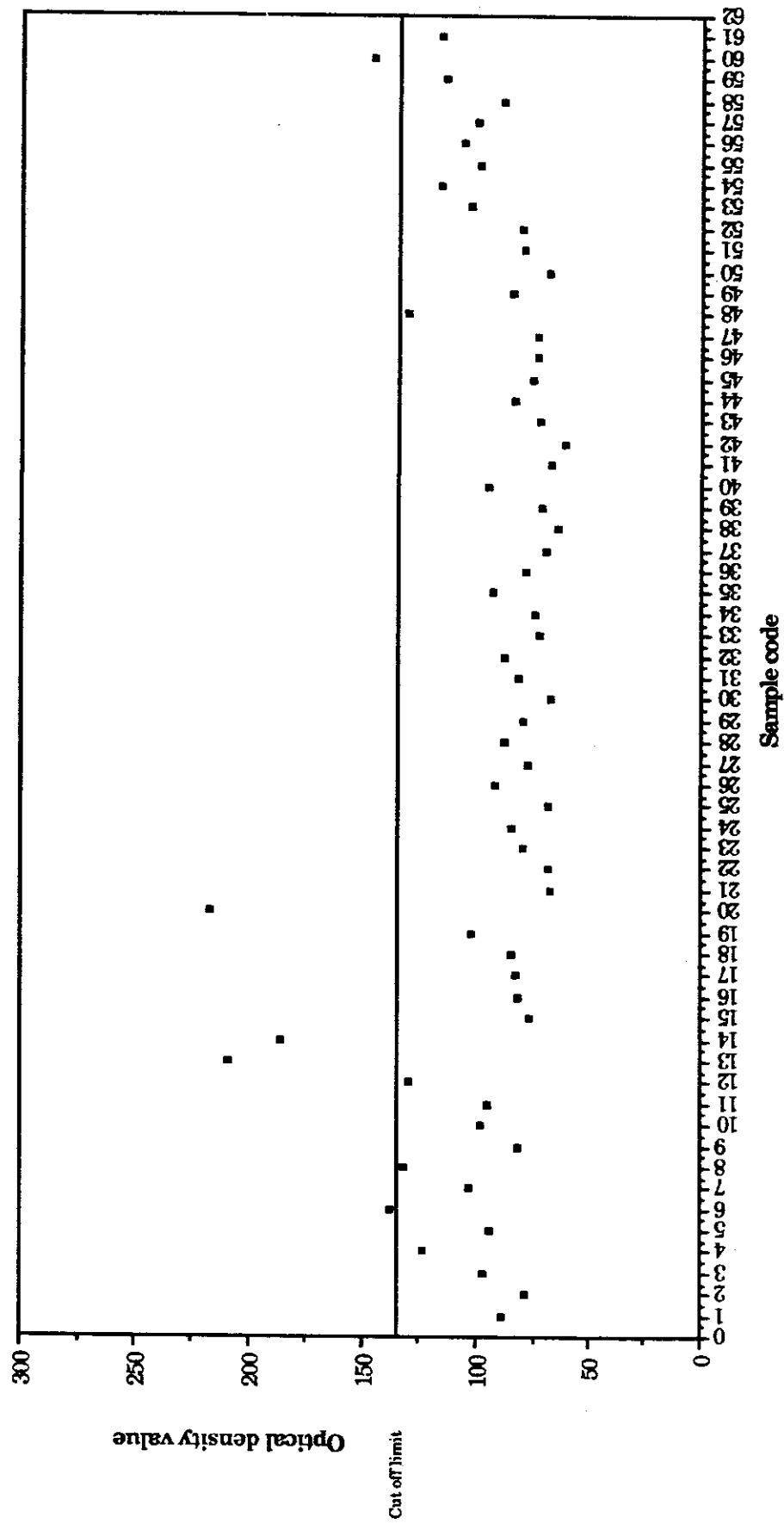


Fig. (8): Detection of anti-HSV-I specific IgG in saliva among children aged between 6-24 months by ELISA test.

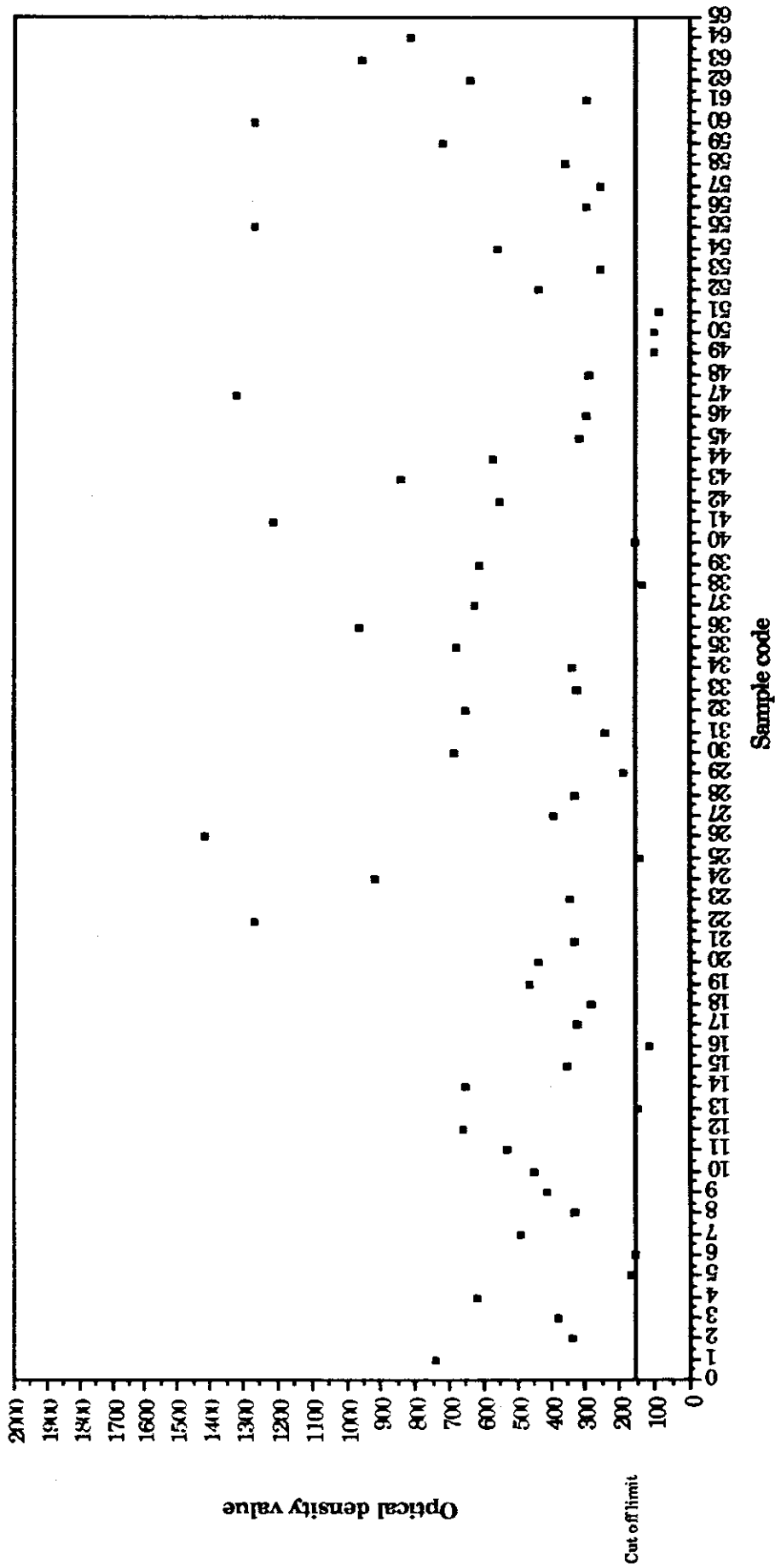


Fig. (9): Detection of anti-HSV-II specific IgA in serum among adults aged between 16-24 years by ELISA test.

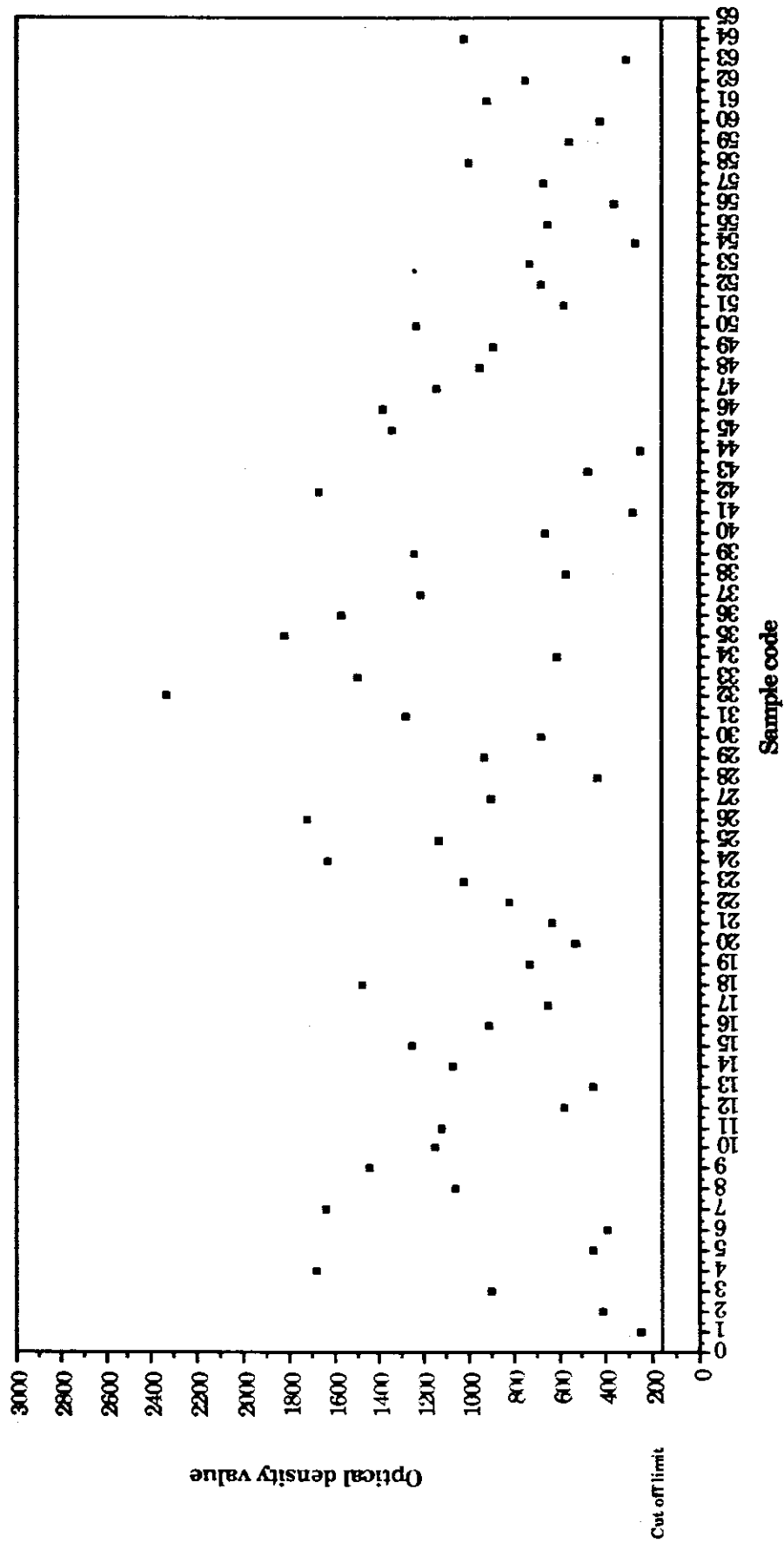


Fig. (10): Detection of anti-HSV-II specific IgA in saliva among adults aged between 16-24 years by ELISA test.

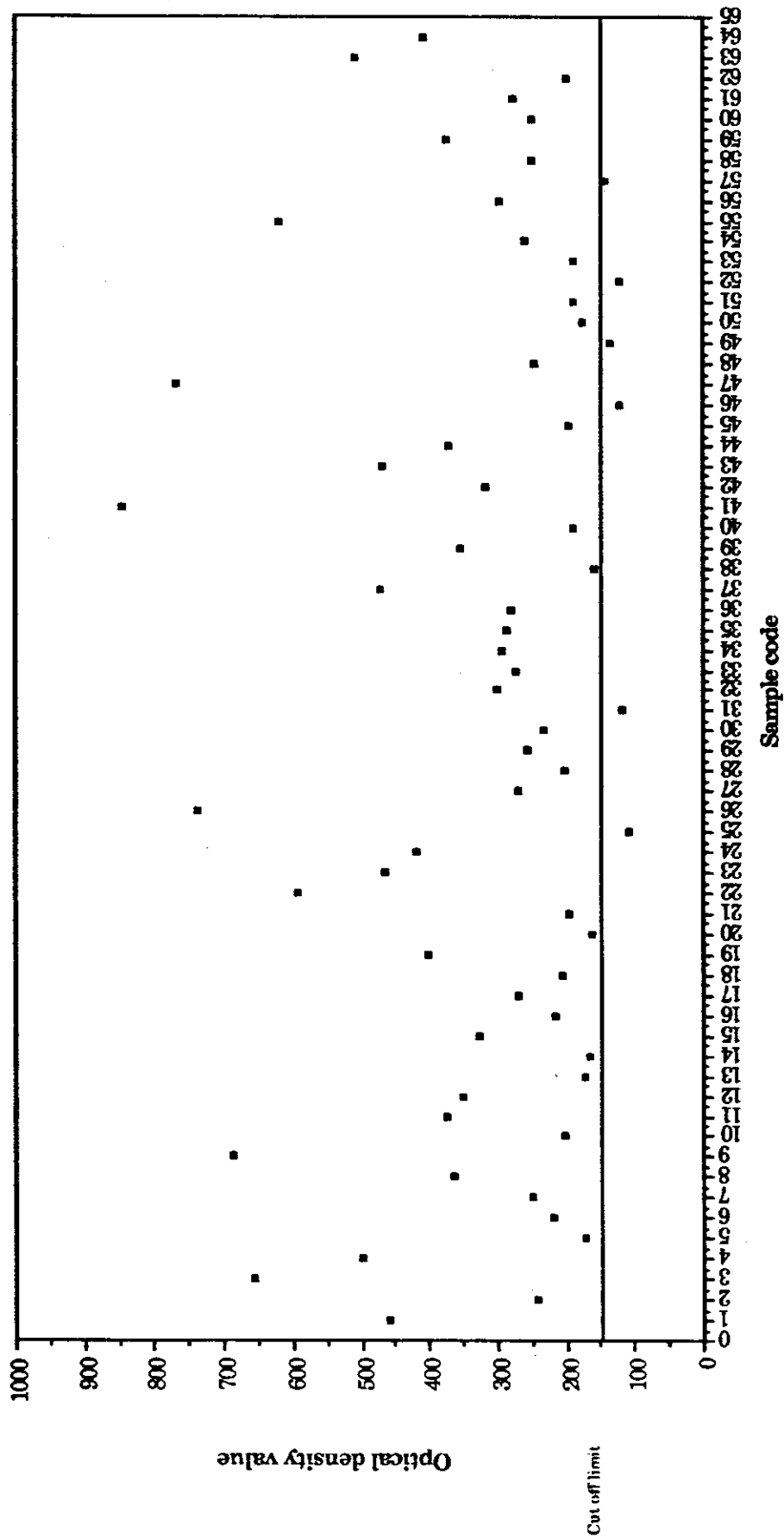


Fig. (11): Detection of anti-HSV-II specific IgM in serum among adults aged between 16-24 years by ELISA test.

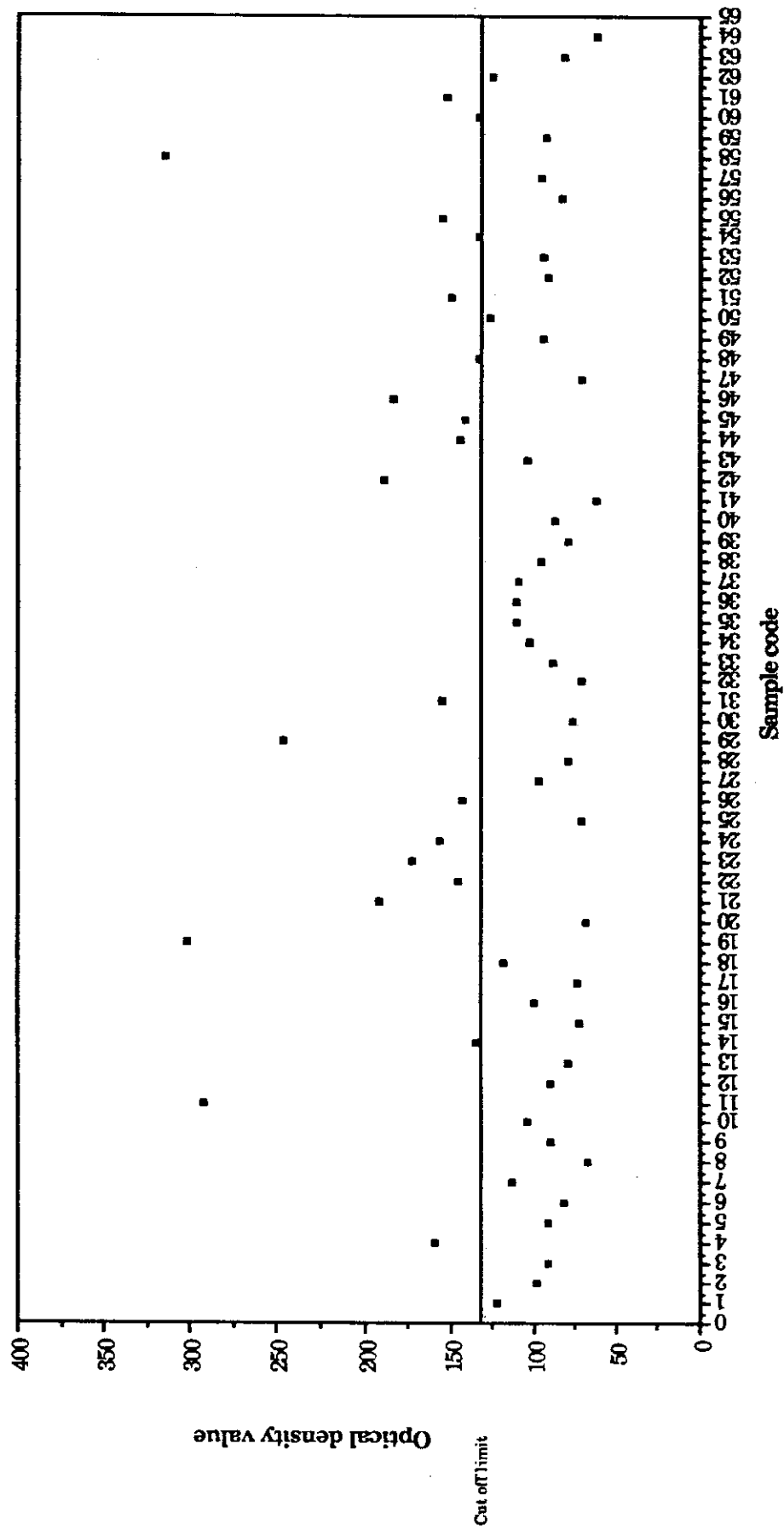


Fig. (12): Detection of anti-HSV-II specific IgM in saliva among adults aged between 16-24 years by ELISA test.

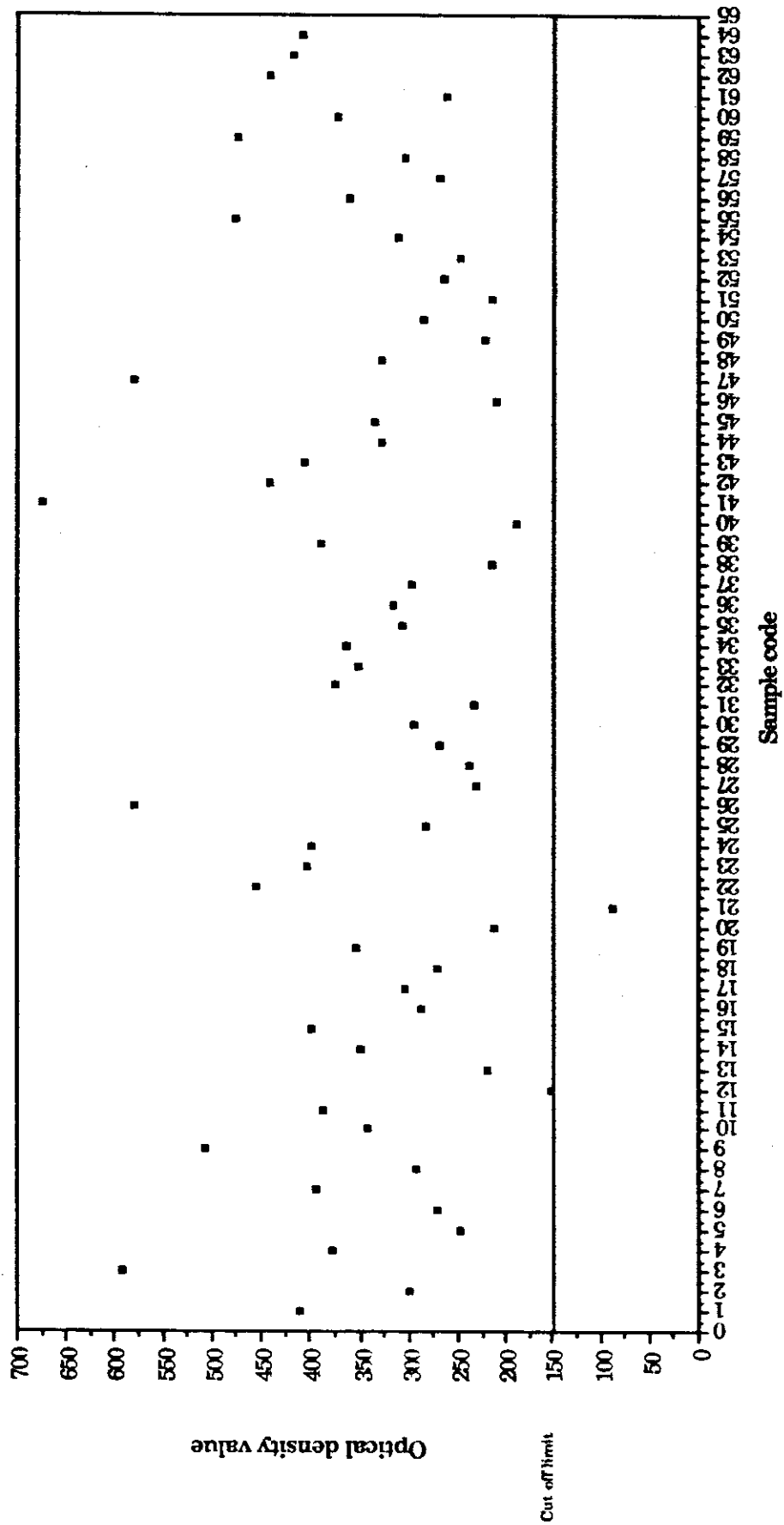


Fig. (13): Detection of anti-HSV-II specific IgG in serum among adults aged between 16-24 years by ELISA test.

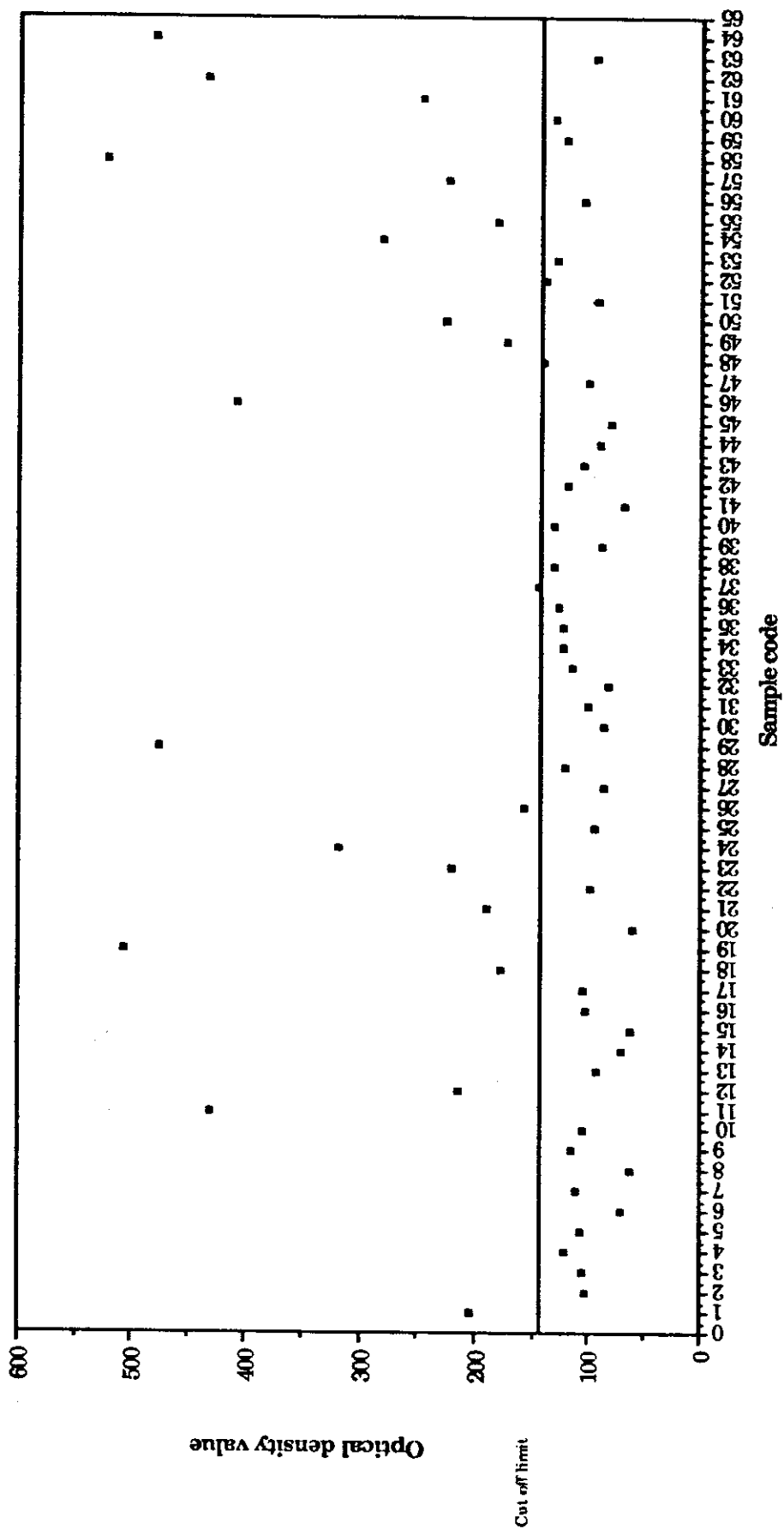
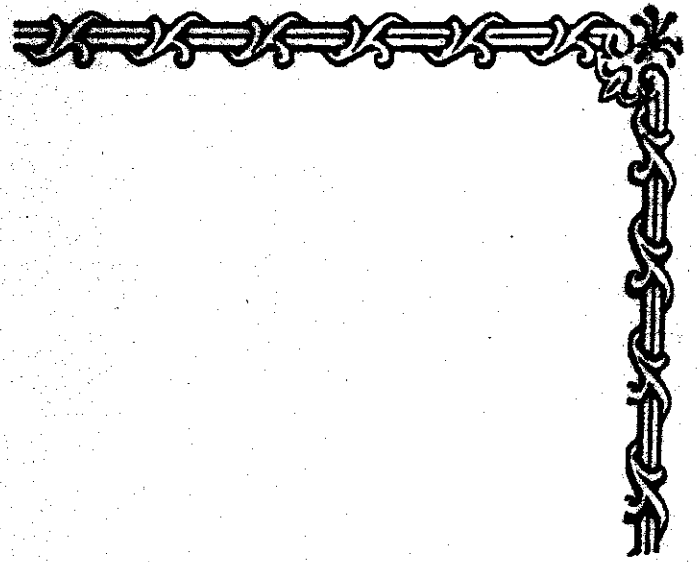


Fig. (14): Detection of anti-HSV-II specific IgG in saliva among adults aged between 16-24 years by ELISA test.



DISCUSSION

