

**Table S1.** EBV viral load by assay

Challenge	Assay	log <sub>10</sub> Copies/mL				log <sub>10</sub> IU/mL			
		N	Mean (SD)	Median (IQR)	Range	N	Mean (SD)	Median (IQR)	Range
VLS/VLS2-05	Abbott	4	5.15 (0.54)	4.97 (0.67)	1.21	1	4.66 (—)	4.66 (0.00)	0.00
	Focus	11	4.61 (0.54)	4.46 (0.65)	1.88	2	4.52 (0.08)	4.52 (0.12)	0.12
	LDT	36	4.54 (0.64)	4.52 (0.80)	2.94	1	3.33 (—)	3.33 (0.00)	0.00
	Luminex	1	4.57 (—)	4.57 (0.00)	0.00	1	5.30 (—)	5.30 (0.00)	0.00
	Nanogen*	8	4.41 (0.59)	4.23 (0.56)	1.81				
	Other	9	4.13 (0.69)	4.50 (0.62)	1.96	4	4.51 (0.32)	4.56 (0.54)	0.66
	Qiagen	32	4.83 (0.47)	4.87 (0.50)	2.62	1	4.34 (—)	4.34 (0.00)	0.00
	Roche Other	27	4.48 (0.50)	4.38 (0.66)	2.00				
	Tib Molbiol	6	4.85 (0.54)	4.86 (0.99)	1.36				
VLS/VLS2-06	Abbott	4	2.96 (0.18)	2.97 (0.28)	0.42	1	2.66 (—)	2.66 (0.00)	0.00
	Focus	7	2.88 (0.48)	2.74 (0.45)	1.43	2	2.67 (0.33)	2.67 (0.47)	0.47
	LDT	24	2.94 (0.51)	2.95 (0.64)	1.97				
	Luminex	1	2.79 (—)	2.79 (0.00)	0.00	1	3.00 (—)	3.00 (0.00)	0.00
	Nanogen*	8	2.47 (0.47)	2.47 (0.41)	1.60				
	Other	5	2.62 (0.67)	2.71 (0.50)	1.83	3	2.51 (0.51)	2.38 (1.00)	1.00
	Qiagen	23	3.16 (0.65)	3.10 (0.56)	3.11	1	2.14 (—)	2.14 (0.00)	0.00
	Roche Other	19	3.18 (0.51)	3.20 (0.58)	2.43				
	Tib Molbiol	5	3.05 (0.37)	3.25 (0.28)	0.88				
VLS/VLS2-15	Abbott	4	2.89 (0.42)	2.93 (0.55)	1.03				
	Focus	8	2.86 (0.51)	2.70 (0.48)	1.62	4	2.82 (0.16)	2.78 (0.25)	0.34
	LDT	30	2.87 (0.51)	2.80 (0.61)	2.28	3	2.28 (0.07)	2.29 (0.14)	0.14
	Luminex	1	2.89 (—)	2.89 (0.00)	0.00				
	Nanogen*	7	2.82 (0.58)	2.79 (0.28)	1.95				
	Other	10	2.72 (0.53)	2.58 (0.82)	1.73	5	2.57 (0.36)	2.60 (0.30)	0.91

Challenge	Assay	log <sub>10</sub> Copies/mL				log <sub>10</sub> IU/mL			
		N	Mean (SD)	Median (IQR)	Range	N	Mean (SD)	Median (IQR)	Range
	Qiagen	24	2.93 (0.54)	3.00 (0.57)	2.10	2	2.47 (0.44)	2.47 (0.62)	0.62
	Roche Other	16	3.11 (0.55)	3.07 (0.46)	2.30				
	Tib Molbiol	3	2.52 (0.42)	2.30 (0.75)	0.75	1	2.03 (—)	2.03 (0.00)	0.00
VLS/VLS2-16	Abbott	4	3.88 (0.21)	3.85 (0.28)	0.51				
	Focus	11	3.44 (0.64)	3.26 (0.95)	2.06	4	3.56 (0.39)	3.62 (0.63)	0.83
	LDT	35	3.57 (0.67)	3.55 (0.68)	2.78	3	3.17 (0.11)	3.12 (0.20)	0.20
	Luminex	1	3.62 (—)	3.62 (0.00)	0.00				
	Nanogen*	10	3.57 (0.53)	3.49 (0.65)	1.73				
	Other	11	3.43 (0.38)	3.59 (0.77)	1.01	5	3.57 (0.14)	3.50 (0.21)	0.31
	Qiagen	33	3.77 (0.44)	3.77 (0.62)	1.91	2	3.49 (0.35)	3.49 (0.50)	0.50
	Roche Other	27	3.50 (0.63)	3.40 (0.78)	2.62				
	Tib Molbiol	4	3.59 (0.46)	3.77 (0.53)	1.01	1	2.97 (—)	2.97 (0.00)	0.00
VLS2-25	Focus	2	2.89 (0.83)	2.89 (1.18)	1.18				
	LDT	10	2.73 (0.30)	2.70 (0.48)	0.99	2	1.92 (0.12)	1.92 (0.17)	0.17
	Nanogen*	2	2.82 (0.54)	2.82 (0.77)	0.77				
	Other	2	1.94 (1.11)	1.94 (1.57)	1.57	1	1.92 (—)	1.92 (0.00)	0.00
	Qiagen	5	2.58 (0.16)	2.54 (0.19)	0.40	2	2.23 (0.33)	2.23 (0.46)	0.46
	Roche Other	1	2.75 (—)	2.75 (0.00)	0.00				
	Tib Molbiol	1	2.30 (—)	2.30 (0.00)	0.00				

2 N, number of labs; SD, standard deviation; IQR, interquartile range; LDT, Lab Developed Test

3 \*Now ELITech

**Table S2. BKV viral load by assay**

Sample	Assay	log <sub>10</sub> Copies/mL			
		N	Mean (SD)	Median (IQR)	Range
VLS/VLS2-01	Focus Diagnostics	18	5.73 (0.40)	5.81 (0.52)	1.56
	Lab Developed Test	46	5.91 (0.55)	5.86 (0.82)	2.20
	Luminex	17	5.64 (0.35)	5.57 (0.34)	1.34
	Nanogen*	22	5.62 (0.57)	5.62 (0.52)	2.75
	Other	18	5.49 (0.69)	5.58 (0.28)	3.12
	Qiagen	10	5.67 (0.50)	5.70 (0.64)	1.67
	Roche Other	1	6.29 (—)	6.29 (0.00)	0.00
	Tib Molbiol	14	5.80 (0.51)	5.84 (0.74)	1.59
VLS/VLS2-11	Abbott	1	5.01 (—)	5.01 (0.00)	0.00
	Focus Diagnostics	24	4.38 (0.44)	4.39 (0.57)	1.94
	Lab Developed Test	47	4.63 (0.46)	4.65 (0.49)	2.40
	Luminex	17	4.54 (0.41)	4.57 (0.60)	1.34
	Nanogen*	16	4.51 (0.46)	4.54 (0.33)	2.23
	Other	19	4.34 (0.54)	4.16 (0.69)	2.53
	Qiagen	11	4.31 (0.23)	4.32 (0.41)	0.74
	Roche Other	1	3.80 (—)	3.80 (0.00)	0.00
Tib Molbiol	13	4.60 (0.46)	4.75 (0.48)	1.51	
VLS/VLS2-12	Abbott	1	3.31 (—)	3.31 (0.00)	0.00
	Focus Diagnostics	19	2.98 (0.38)	3.00 (0.44)	1.56
	Lab Developed Test	41	3.12 (0.45)	3.00 (0.56)	1.88
	Luminex	13	3.08 (0.38)	3.08 (0.53)	1.37
	Nanogen*	15	3.04 (0.36)	2.99 (0.70)	1.03
	Other	15	2.84 (0.66)	2.78 (0.65)	3.06
	Qiagen	9	2.79 (0.38)	2.78 (0.39)	1.28

Sample	Assay	log <sub>10</sub> Copies/mL			
		N	Mean (SD)	Median (IQR)	Range
	Roche Other	1	3.07 (—)	3.07 (0.00)	0.00
	Tib Molbiol	9	3.05 (0.39)	2.99 (0.46)	1.31
VLS2-21	Focus Diagnostics	7	4.08 (0.60)	4.17 (0.96)	1.77
	Lab Developed Test	16	4.45 (0.73)	4.27 (1.15)	2.46
	Luminex	1	4.00 (—)	4.00 (0.00)	0.00
	Nanogen*	2	4.50 (0.70)	4.50 (0.99)	0.99
	Other	6	4.34 (0.76)	4.18 (1.25)	1.88
	Qiagen	5	3.99 (0.78)	4.39 (1.05)	1.82
	Tib Molbiol	4	4.83 (0.51)	4.89 (0.84)	1.09
VLS2-22	Focus Diagnostics	7	6.04 (0.55)	6.03 (0.89)	1.59
	Lab Developed Test	17	6.38 (0.74)	6.48 (0.87)	2.70
	Luminex	1	6.08 (—)	6.08 (0.00)	0.00
	Nanogen*	2	6.61 (0.57)	6.61 (0.81)	0.81
	Other	6	6.45 (0.76)	6.26 (1.47)	1.70
	Qiagen	5	6.04 (0.51)	6.14 (0.48)	1.34
	Tib Molbiol	4	6.72 (0.65)	6.89 (0.88)	1.50

5 N, number of labs; SD, standard deviation; IQR, interquartile range

6 \*Now ELITech

**Table S3.** ADV viral load by assay

Sample	Assay	log <sub>10</sub> Copies/mL			
		N	Mean (SD)	Median (IQR)	Range
VLS2-07	Focus Diagnostics	3	4.62 (0.25)	4.52 (0.47)	0.47
	Lab Developed Test	17	4.64 (0.60)	4.71 (0.84)	2.13
	Nanogen*	1	5.40 (—)	5.40 (0.00)	0.00
	Other	3	3.79 (0.64)	4.12 (1.15)	1.15
	Tib Molbiol	2	4.69 (0.30)	4.69 (0.42)	0.42
VLS2-08	Focus Diagnostics	3	5.04 (0.77)	5.13 (1.53)	1.53
	Lab Developed Test	17	5.39 (1.25)	4.75 (1.85)	3.60
	Nanogen*	1	5.80 (—)	5.80 (0.00)	0.00
	Other	3	4.69 (0.23)	4.62 (0.44)	0.44
	Tib Molbiol	2	5.76 (0.63)	5.76 (0.89)	0.89
VLS2-17	Focus Diagnostics	6	5.19 (0.70)	5.16 (1.19)	1.80
	Lab Developed Test	16	5.39 (0.48)	5.34 (0.75)	1.83
	Nanogen*	1	5.30 (—)	5.30 (0.00)	0.00
	Other	5	5.30 (1.09)	5.25 (0.95)	2.91
	Tib Molbiol	3	5.31 (0.99)	5.36 (1.98)	1.98
VLS2-18	Focus Diagnostics	6	5.82 (0.99)	5.99 (0.74)	2.70
	Lab Developed Test	16	5.71 (1.09)	5.97 (0.73)	4.67
	Nanogen*	1	6.80 (—)	6.80 (0.00)	0.00
	Other	5	5.94 (1.27)	5.72 (0.98)	3.44
	Tib Molbiol	3	6.23 (0.62)	5.88 (1.09)	1.09
VLS2-27	Focus Diagnostics	6	5.24 (0.91)	4.97 (0.53)	2.50
	Lab Developed Test	17	4.70 (0.45)	4.77 (0.46)	1.52
	Nanogen*	1	5.10 (—)	5.10 (0.00)	0.00
	Other	5	4.85 (0.71)	4.79 (0.63)	1.86

	Tib Molbiol	3	4.12 (1.41)	4.81 (2.55)	2.55
VLS2-28	Focus Diagnostics	6	6.46 (0.97)	6.49 (0.70)	2.91
	Lab Developed Test	17	6.44 (1.17)	6.07 (1.19)	4.34
	Nanogen*	1	7.00 (—)	7.00 (0.00)	0.00
	Other	5	7.31 (0.77)	7.21 (1.27)	1.76
	Tib Molbiol	3	7.10 (1.40)	7.13 (2.80)	2.80

8 N, number of labs; SD, standard deviation; IQR, interquartile range

9 \*Now ELITech

**Table S4.** HHV6 viral load by assay

Sample	Assay	log <sub>10</sub> Copies/mL			
		N	Mean (SD)	Median (IQR)	Range
VLS2-09	Focus Diagnostics	1	3.07 (—)	3.07 (0.00)	0.00
	Lab Developed Test	13	5.29 (0.82)	5.30 (0.92)	2.98
	Nanogen*	2	5.55 (0.08)	5.55 (0.11)	0.11
	Other	4	5.03 (0.90)	5.40 (1.08)	1.94
	Tib Molbiol	5	5.15 (0.69)	5.57 (1.08)	1.48
VLS2-10	Lab Developed Test	13	3.83 (0.74)	3.93 (0.47)	2.83
	Nanogen*	2	4.40 (0.28)	4.40 (0.39)	0.39
	Other	4	3.94 (0.62)	4.23 (0.66)	1.28
	Tib Molbiol	4	3.88 (0.60)	4.10 (0.77)	1.33
VLS2-20	Focus Diagnostics	3	4.15 (1.05)	4.15 (2.09)	2.09
	Lab Developed Test	14	4.62 (0.52)	4.64 (0.32)	2.36
	Nanogen*	2	4.74 (0.19)	4.74 (0.27)	0.27
	Other	4	4.05 (0.52)	4.04 (0.69)	1.27
	Tib Molbiol	4	4.64 (0.97)	4.44 (1.59)	2.00
VLS2-29	Focus Diagnostics	2	4.40 (1.41)	4.40 (2.00)	2.00
	Lab Developed Test	14	5.55 (0.67)	5.69 (0.63)	2.99
	Nanogen*	1	5.90 (—)	5.90 (0.00)	0.00
	Other	4	5.66 (0.44)	5.55 (0.68)	0.96
	Tib Molbiol	4	5.02 (1.78)	5.14 (2.46)	4.29
VLS2-30	Focus Diagnostics	2	3.58 (0.96)	3.58 (1.36)	1.36
	Lab Developed Test	14	4.00 (0.47)	3.99 (0.63)	1.87
	Nanogen*	1	4.50 (—)	4.50 (0.00)	0.00
	Other	4	4.10 (0.55)	3.89 (0.71)	1.17
	Tib Molbiol	4	3.42 (1.69)	3.61 (2.26)	4.08

11 N, number of labs; SD, standard deviation; IQR, interquartile range; \*Now ELITech