

APPENDIX

Source data of flow-cytometric analysis

Supplement table 1 Raw data of cytokine production and CD107a expression of CD4+ T cells in response to 2009 H1N1 influenza A vaccine stimulation *in vitro*

Visit	Group	Antigen	% Cytokine-producing and CD107a-expressing CD4+ T cells				
			TNF- α	IFN- γ	IL-2	IL-10	CD107a
Day 0	HIV+ (n=44)	Unstimulated	0.37 (0.20-0.74)	0.12 (0.08-0.17)	0.09 (0.05-0.13)	0.08 (0.06-0.11)	0.68 (0.45-1.11)
		Vaccine	0.38 (0.19-1.12)	0.14 (0.11-0.23)	0.11 (0.07-0.16)	0.10 (0.08-0.14)	0.99 (0.66-1.25)
	HIV- (n=15)	Unstimulated	0.19 (0.13-0.65)	0.08 (0.06-0.12)	0.07 (0.05-0.12)	0.07 (0.05-0.09)	0.37 (0.27-0.52)
		Vaccine	0.19 (0.14-1.15)	0.09 (0.08-0.17)	0.08 (0.07-0.16)	0.09 (0.08-0.12)	0.43 (0.27-0.70)
Month 1	HIV+ (n=43)	Unstimulated	0.29 (0.15-0.71)	0.11 (0.08-0.16)	0.08 (0.06-0.14)	0.09 (0.06-0.13)	0.60 (0.32-0.81)
		Vaccine	0.26 (0.16-1.08)	0.15 (0.10-0.21)	0.11 (0.07-0.17)	0.09 (0.08-0.14)	0.77 (0.51-1.14)
	HIV- (n=15)	Unstimulated	0.17 (0.14-0.65)	0.08 (0.06-0.13)	0.07 (0.05-0.11)	0.07 (0.04-0.10)	0.41 (0.21-0.56)
		Vaccine	0.20 (0.15-1.12)	0.12 (0.07-0.15)	0.11 (0.07-0.17)	0.09 (0.07-0.12)	0.51 (0.28-0.97)
Month 3	HIV+ (n=44)	Unstimulated	0.27 (0.13-0.63)	0.11 (0.06-0.16)	0.09 (0.06-0.13)	0.10 (0.06-0.13)	0.48 (0.26-0.65)
		Vaccine	0.24 (0.16-1.13)	0.12 (0.10-0.18)	0.11 (0.08-0.16)	0.11 (0.08-0.15)	0.52 (0.32-0.76)
	HIV- (n=15)	Unstimulated	0.22 (0.14-0.58)	0.08 (0.05-0.14)	0.06 (0.05-0.13)	0.07 (0.05-0.11)	0.41 (0.24-0.58)
		Vaccine	0.20 (0.14-1.11)	0.11 (0.07-0.16)	0.11 (0.08-0.16)	0.09 (0.06-0.14)	0.52 (0.33-0.84)

Supplement table 2 Raw data of cytokine production and CD107a expression of CD8+ T cells in response to 2009 H1N1 influenza A vaccine stimulation *in vitro*

Visit	Group	Antigen	% Cytokine-producing and CD107a-expressing CD8+ T cells				
			TNF- α	IFN- γ	IL-2	IL-10	CD107a
Day 0	HIV+ (n=44)	Unstimulated	0.45 (0.20-0.66)	0.06 (0.03-0.09)	0.04 (0.03-0.06)	0.05 (0.03-0.08)	0.67 (0.49-0.93)
		Vaccine	0.40 (0.20-0.89)	0.09 (0.05-0.18)	0.04 (0.02-0.08)	0.79 (0.66-1.40)	0.06 (0.04-0.10)
	HIV- (n=15)	Unstimulated	0.46 (0.22-0.75)	0.04 (0.02-0.10)	0.03 (0.02-0.06)	0.04 (0.03-0.08)	0.46 (0.31-0.73)
		Vaccine	0.39 (0.24-0.99)	0.08 (0.04-0.15)	0.05 (0.03-0.07)	0.07 (0.04-0.12)	0.54 (0.38-0.95)
Month 1	HIV+ (n=43)	Unstimulated	0.42 (0.19-0.69)	0.06 (0.03-0.13)	0.05 (0.03-0.06)	0.06 (0.03-0.08)	0.59 (0.46-0.86)
		Vaccine	0.36 (0.23-0.81)	0.08 (0.04-0.20)	0.05 (0.03-0.08)	0.07 (0.05-0.10)	0.74 (0.56-1.09)
	HIV- (n=15)	Unstimulated	0.46 (0.19-0.59)	0.04 (0.03-0.07)	0.04 (0.03-0.06)	0.05 (0.02-0.06)	0.47 (0.31-0.77)
		Vaccine	0.33 (0.21-0.92)	0.10 (0.04-0.14)	0.05 (0.02-0.07)	0.06 (0.03-0.09)	0.61 (0.40-1.35)
Month 3	HIV+ (n=44)	Unstimulated	0.40 (0.21-0.65)	0.07 (0.03-0.15)	0.05 (0.03-0.07)	0.06 (0.03-0.08)	0.54 (0.36-0.84)
		Vaccine	0.35 (0.24-0.99)	0.11 (0.04-0.17)	0.05 (0.03-0.09)	0.07 (0.05-0.11)	0.61 (0.50-0.91)
	HIV- (n=15)	Unstimulated	0.35 (0.18-0.63)	0.03 (0.02-0.08)	0.04 (0.02-0.06)	0.04(0.02-0.06)	0.42 (0.30-0.77)
		Vaccine	0.25 (0.18-0.88)	0.07 (0.03-0.12)	0.04 (0.02-0.06)	0.06 (0.02-0.09)	0.48 (0.42-1.06)

Supplement table 3 Raw data of cytokine production and CD107a expression of memory CD4+ T cells in response to 2009 H1N1 influenza A vaccine stimulation *in vitro*

Visit	Group	Antigen	% Cytokine-producing and CD107a-expressing CD4+ memory T cells				
			TNF- α	IFN- γ	IL2	IL10	CD107a
Day 0	HIV+ (n=44)	Unstimulated	0.68 (0.35-1.56)	0.17 (0.10-0.25)	0.10 (0.07-0.16)	0.13 (0.07-0.18)	1.07 (0.73-1.52)
		Vaccine	0.70 (0.38-1.58)	0.21 (0.14-0.36)	0.15 (0.08-0.21)	0.15 (0.08-0.21)	1.44 (0.95-1.78)
	HIV- (n=15)	Unstimulated	0.47 (0.25-1.14)	0.13 (0.09-0.20)	0.08 (0.05-0.16)	0.11 (0.08-0.14)	0.56 (0.44-0.83)
		Vaccine	0.45 (0.28-2.21)	0.16 (0.11-0.26)	0.13 (0.10-0.19)	0.14 (0.10-0.21)	0.64 (0.49-1.05)
Month 1	HIV+ (n=43)	Unstimulated	0.54 (0.25-1.29)	0.17 (0.12-0.25)	0.10 (0.07-0.15)	0.13 (0.09-0.20)	0.90 (0.49-1.21)
		Vaccine	0.52 (0.30-1.48)	0.21 (0.13-0.31)	0.17 (0.09-0.24)	0.15 (0.09-0.23)	1.17 (0.65-1.45)
	HIV- (n=15)	Unstimulated	0.48 (0.26-1.16)	0.11 (0.10-0.22)	0.09 (0.06-0.15)	0.10 (0.08-0.18)	0.64 (0.33-0.72)
		Vaccine	0.51 (0.28-2.03)	0.17 (0.12-0.28)	0.15 (0.11-0.24)	0.15 (0.08-0.21)	0.90 (0.52-1.18)
Month 3	HIV+ (n=44)	Unstimulated	0.51 (0.24-1.36)	0.14 (0.10-0.23)	0.11 (0.07-0.16)	0.15 (0.07-0.23)	0.67 (0.37-1.03)
		Vaccine	0.51 (0.28-1.56)	0.16 (0.13-0.29)	0.15 (0.10-0.23)	0.16 (0.10-0.25)	0.75 (0.46-1.00)
	HIV- (n=15)	Unstimulated	0.59 (0.25-1.14)	0.13 (0.09-0.32)	0.09 (0.06-0.16)	0.12 (0.08-0.15)	0.68 (0.51-1.01)
		Vaccine	0.42 (0.25-1.93)	0.16 (0.13-0.31)	0.17 (0.09-0.24)	0.14 (0.08-0.20)	1.01 (0.66-1.23)

Supplement table 4 Raw data of cytokine production and CD107a expression of memory CD8+ T cells in response to 2009 H1N1 influenza A vaccine stimulation *in vitro*

Visit	Group	Antigen	% Cytokine-producing and CD107a-expressing CD8+ memory T cells				
			TNF- α	IFN- γ	IL-2	IL-10	CD107a
Day 0	HIV+ (n=44)	Unstimulated	1.26 (0.64-2.25)	0.12 (0.05-0.20)	0.07 (0.03-0.10)	0.09 (0.05-0.13)	1.37 (1.06-1.99)
		Vaccine	1.12 (0.62-2.23)	0.15 (0.08-0.39)	0.08 (0.03-0.13)	0.10 (0.06-0.15)	1.73 (1.15-2.36)
	HIV- (n=15)	Unstimulated	1.79 (0.81-3.15)	0.09 (0.03-0.22)	0.05 (0.02-0.09)	0.08 (0.05-0.10)	1.00 (0.62-1.77)
		Vaccine	1.78 (0.92-3.61)	0.17 (0.06-0.26)	0.07 (0.03-0.15)	0.10 (0.06-0.18)	1.14 (0.89-2.23)
Month 1	HIV+ (n=43)	Unstimulated	1.14 (0.57-2.20)	0.12 (0.05-0.27)	0.07 (0.04-0.11)	0.11 (0.05-0.14)	1.14 (0.87-1.55)
		Vaccine	1.11 (0.52-1.71)	0.15 (0.06-0.35)	0.08 (0.04-0.15)	0.10 (0.07-0.17)	1.34 (0.89-1.98)
	HIV- (n=15)	Unstimulated	1.82 (0.58-3.31)	0.09 (0.07-0.18)	0.06 (0.05-0.09)	0.09 (0.06-0.11)	1.22 (0.69-1.97)
		Vaccine	2.06 (0.65-3.32)	0.19 (0.07-0.32)	0.05 (0.03-0.15)	0.12 (0.05-0.14)	1.14 (0.81-3.26)
Month 3	HIV+ (n=44)	Unstimulated	1.13 (0.53-2.05)	0.13 (0.05-0.27)	0.07 (0.04-0.12)	0.09 (0.05-0.13)	1.01 (0.53-2.05)
		Vaccine	1.05 (0.54-2.07)	0.19 (0.07-0.33)	0.07 (0.03-0.14)	0.10 (0.07-0.16)	1.20 (0.78-1.59)
	HIV- (n=15)	Unstimulated	1.77 (0.74-3.49)	0.11 (0.08-0.19)	0.06 (0.02-0.10)	0.08 (0.04-0.13)	1.28 (0.67-1.95)
		Vaccine	1.50 (0.75-3.56)	0.12 (0.05-0.21)	0.05 (0.02-0.09)	0.10 (0.05-0.15)	1.41 (0.94-2.90)

Supplement table 5 Raw data of cytokine production and CD107a expression of total T cells in HIV– healthy individuals after recombinant HBsAg stimulation *in vitro*

Visit	Antigen	% Cytokine-producing and CD107a-expressing total T cells				
		TNF- α	IFN- γ	IL-2	IL-10	CD107a
Total CD4+ T cells						
Day 0	Unstimulated	0.26 (0.12-0.32)	0.25 (0.13-0.36)	0.38 (0.25-0.65)	0.17 (0.09-0.26)	1.17 (0.93-1.67)
	rHBsAg	0.17 (0.13-0.30)	0.20 (0.13-0.30)	0.40 (0.28-0.60)	0.19 (0.12-0.29)	1.14 (0.96-1.61)
Day 7	Unstimulated	0.17 (0.13-0.26)	0.22 (0.13-0.38)	0.36 (0.26-0.58)	0.17 (0.11-0.29)	1.46 (1.11-1.86)
	rHBsAg	0.14 (0.09-0.25)	0.19 (0.14-0.34)	0.33 (0.27-0.51)	0.19 (0.10-0.30)	1.53 (1.10-1.79)
Day 28	Unstimulated	0.19 (0.11-0.32)	0.26 (0.13-0.40)	0.39 (0.26-0.55)	0.17 (0.11-0.29)	1.36 (1.04-1.96)
	rHBsAg	0.15 (0.12-0.26)	0.24 (0.13-0.40)	0.40 (0.28-0.56)	0.19 (0.12-0.31)	1.43 (0.98-1.96)
Month 6	Unstimulated	0.22 (0.16-0.38)	0.20 (0.15-0.39)	0.37 (0.27-0.53)	0.21 (0.13-0.28)	1.30 (1.06-1.81)
	rHBsAg	0.21 (0.11-0.34)	0.19 (0.12-0.34)	0.33 (0.26-0.56)	0.21 (0.13-0.35)	1.33 (1.01-1.70)
Month 7	Unstimulated	0.16 (0.12-0.35)	0.25 (0.12-0.36)	0.37 (0.29-0.60)	0.19 (0.12-0.32)	1.19 (0.84-1.43)
	rHBsAg	0.24 (0.15-0.31)	0.24 (0.12-0.36)	0.43 (0.30-0.62)	0.22 (0.13-0.35)	1.03 (0.82-1.51)
Month 12	Unstimulated	0.22 (0.11-0.51)	0.40 (0.18-0.55)	0.35 (0.25-0.69)	0.17 (0.08-0.35)	2.04 (1.35-3.74)
	rHBsAg	0.19 (0.10-0.24)	0.26 (0.12-0.42)	0.32 (0.25-0.57)	0.22 (0.09-0.43)	1.73 (1.33-4.16)
Total CD8+ T cells						
Day 0	Unstimulated	0.50 (0.25-0.90)	0.19 (0.14-0.35)	0.24 (0.15-0.43)	0.26 (0.11-0.39)	1.52 (1.22-2.14)
	rHBsAg	0.40 (0.25-0.60)	0.15 (0.07-0.24)	0.21 (0.14-0.40)	0.24 (0.11-0.50)	1.45 (1.07-2.00)
Day 7	Unstimulated	0.38 (0.24-0.61)	0.27 (0.12-0.45)	0.23 (0.15-0.40)	0.27 (0.11-0.51)	1.82 (1.28-2.31)
	rHBsAg	0.35 (0.21-0.46)	0.17 (0.09-0.33)	0.22 (0.13-0.41)	0.25 (0.11-0.48)	1.87 (1.33-2.31)
Day 28	Unstimulated	0.34 (0.23-0.74)	0.21 (0.14-0.49)	0.23 (0.15-0.44)	0.31 (0.14-0.51)	1.80 (1.35-2.59)
	rHBsAg	0.32 (0.22-0.66)	0.19 (0.08-0.38)	0.20 (0.15-0.39)	0.26 (0.13-0.53)	1.64 (1.25-2.68)
Month 6	Unstimulated	0.44 (0.30-0.68)	0.25 (0.14-0.51)	0.23 (0.18-0.40)	0.24 (0.13-0.53)	1.70 (1.38-2.08)
	rHBsAg	0.36 (0.25-0.66)	0.16 (0.11-0.37)	0.22 (0.15-0.43)	0.26 (0.13-0.53)	1.69 (1.19-1.97)
Month 7	Unstimulated	0.39 (0.22-0.82)	0.23 (0.12-0.43)	0.24 (0.15-0.43)	0.23 (0.15-0.43)	1.33 (1.01-1.81)
	rHBsAg	0.47 (0.34-0.62)	0.19 (0.07-0.42)	0.21 (0.14-0.42)	0.27 (0.13-0.51)	1.41 (0.97-1.81)
Month 12	Unstimulated	0.52 (0.27-0.92)	0.12 (0.08-0.40)	0.25 (0.07-0.35)	0.12 (0.08-0.42)	2.53 (1.94-4.80)
	rHBsAg	0.36 (0.18-0.48)	0.10 (0.06-0.37)	0.24 (0.07-0.41)	0.15 (0.08-0.44)	2.53 (2.01-4.62)

Supplement table 6 Raw data of cytokine production and CD107a expression of memory T cells in HIV– healthy individuals after recombinant HBsAg stimulation
in vitro

Visit	Antigen	% Cytokine-producing and CD107a-expressing memory T cells				
		TNF- α	IFN- γ	IL-2	IL-10	CD107a
Memory CD4+ T cells						
Day 0	Unstimulated	0.26 (0.20-0.41)	0.16 (0.12-0.24)	0.17 (0.14-0.25)	0.14 (0.09-0.20)	1.71 (1.49-2.35)
	rHBsAg	0.27 (0.16-0.35)	0.15 (0.10-0.22)	0.19 (0.14-0.21)	0.18 (0.07-0.23)	1.87 (1.41-2.29)
Day 7	Unstimulated	0.26 (0.16-0.46)	0.16 (0.12-0.25)	0.19 (0.13-0.26)	0.16 (0.10-0.21)	2.31 (1.70-2.71)
	rHBsAg	0.27 (0.16-0.41)	0.16 (0.11-0.26)	0.19 (0.14-0.23)	0.15 (0.08-0.23)	2.24 (1.71-2.76)
Day 28	Unstimulated	0.28 (0.21-0.46)	0.20 (0.14-0.25)	0.19 (0.15-0.23)	0.16 (0.09-0.22)	2.21 (1.85-2.73)
	rHBsAg	0.30 (0.17-0.51)	0.19 (0.14-0.26)	0.19 (0.14-0.26)	0.17 (0.10-0.23)	2.23 (1.60-2.84)
Month 6	Unstimulated	0.31 (0.15-0.52)	0.17 (0.12-0.23)	0.20 (0.14-0.25)	0.17 (0.08-0.24)	1.90 (1.40-2.37)
	rHBsAg	0.28 (0.16-0.47)	0.15 (0.10-0.25)	0.18 (0.14-0.22)	0.17 (0.09-0.24)	1.86 (1.43-2.21)
Month 7	Unstimulated	0.27 (0.14-0.51)	0.13 (0.10-0.23)	0.17 (0.12-0.25)	0.15 (0.09-0.22)	1.80 (1.36-2.27)
	rHBsAg	0.31 (0.16-0.48)	0.15 (0.11-0.22)	0.22 (0.16-0.29)	0.16 (0.11-0.26)	1.70 (1.05-2.19)
Month 12	Unstimulated	0.24 (0.17-0.55)	0.20 (0.15-0.29)	0.18 (0.12-0.26)	0.16 (0.07-0.24)	2.58 (2.04-4.04)
	rHBsAg	0.22 (0.11-0.35)	0.17 (0.11-0.28)	0.16 (0.13-0.22)	0.19 (0.10-0.28)	2.38 (1.95-4.10)
Memory CD8+ T cells						
Day 0	Unstimulated	0.83 (0.55-1.50)	0.18 (0.13-0.25)	0.18 (0.11-0.23)	0.18 (0.14-0.26)	3.64 (2.71-4.46)
	rHBsAg	0.90 (0.67-1.31)	0.13 (0.04-0.27)	0.16 (0.10-0.26)	0.27 (0.17-0.33)	3.25 (2.76-4.83)
Day 7	Unstimulated	0.98 (0.45-1.39)	0.20 (0.12-0.33)	0.15 (0.10-0.34)	0.23 (0.14-0.38)	3.89 (2.58-4.78)
	rHBsAg	0.81 (0.47-1.20)	0.13 (0.09-0.27)	0.17 (0.10-0.29)	0.22 (0.15-0.38)	4.04 (3.03-5.61)
Day 28	Unstimulated	0.80 (0.44-1.27)	0.23 (0.17-0.40)	0.19 (0.11-0.29)	0.26 (0.15-0.33)	4.04 (2.99-4.87)
	rHBsAg	0.83 (0.47-1.04)	0.11 (0.07-0.28)	0.17 (0.11-0.32)	0.22 (0.14-0.36)	3.73 (2.79-5.64)
Month 6	Unstimulated	0.83 (0.47-1.55)	0.24 (0.14-0.34)	0.19 (0.10-0.27)	0.22 (0.13-0.34)	3.51 (2.52-4.90)
	rHBsAg	0.74 (0.37-1.48)	0.13 (0.07-0.37)	0.18 (0.09-0.30)	0.24 (0.18-0.30)	3.32 (2.67-3.90)
Month 7	Unstimulated	0.69 (0.40-1.26)	0.19 (0.13-0.53)	0.17 (0.10-0.29)	0.24 (0.15-0.35)	2.78 (2.35-4.28)
	rHBsAg	0.72 (0.43-1.31)	0.19 (0.08-0.35)	0.17 (0.10-0.23)	0.22 (0.13-0.37)	2.83 (2.16-4.38)
Month 12	Unstimulated	0.94 (0.72-1.31)	0.20 (0.10-0.30)	0.16 (0.10-0.28)	0.19 (0.11-0.25)	5.47 (3.06-7.12)
	rHBsAg	0.68 (0.39-1.08)	0.11 (0.05-0.28)	0.15 (0.12-0.23)	0.17 (0.08-0.26)	4.95 (3.96-7.64)

Supplement table 7 Raw data of cytokine production and CD107a expression of total T cells in HIV+ standard dose group after recombinant HBsAg stimulation *in vitro*

Visit	Antigen	% Cytokine-producing and CD107a-expressing total T cells				
		TNF- α	IFN- γ	IL-2	IL-10	CD107a
Total CD4+ T cells						
Day 0	Unstimulated	0.18 (0.10-0.35)	0.24 (0.15-0.36)	0.44 (0.30-0.58)	0.16 (0.09-0.39)	1.13 (0.75-1.78)
	rHBsAg	0.17 (0.10-0.33)	0.20 (0.15-0.34)	0.46 (0.32-0.61)	0.21 (0.13-0.36)	1.22 (0.67-2.08)
Day 7	Unstimulated	0.23 (0.11-0.39)	0.26 (0.16-0.39)	0.40 (0.34-0.51)	0.18 (0.09-0.32)	1.55 (1.01-2.22)
	rHBsAg	0.15 (0.12-0.46)	0.29 (0.15-0.39)	0.46 (0.32-0.56)	0.18 (0.11-0.40)	1.30 (0.96-1.97)
Day 28	Unstimulated	0.19 (0.12-0.47)	0.27 (0.18-0.37)	0.42 (0.31-0.56)	0.16 (0.11-0.32)	1.55 (0.99-2.29)
	rHBsAg	0.18 (0.11-0.31)	0.25 (0.16-0.32)	0.39 (0.32-0.54)	0.20 (0.13-0.41)	1.41 (0.97-2.13)
Month 6	Unstimulated	0.19 (0.11-0.37)	0.29 (0.17-0.46)	0.42 (0.32-0.59)	0.18 (0.10-0.36)	1.98 (1.35-2.62)
	rHBsAg	0.18 (0.09-0.47)	0.28 (0.19-0.45)	0.44 (0.32-0.63)	0.23 (0.14-0.37)	1.95 (1.43-2.65)
Month 7	Unstimulated	0.21 (0.12-0.37)	0.28 (0.15-0.47)	0.41 (0.32-0.60)	0.17 (0.12-0.33)	1.48 (0.90-2.29)
	rHBsAg	0.19 (0.12-0.31)	0.22 (0.14-0.47)	0.45 (0.32-0.56)	0.19 (0.13-0.44)	1.48 (0.91-2.15)
Month 12	Unstimulated	0.19 (0.11-0.40)	0.26 (0.16-0.40)	0.44 (0.30-0.61)	0.17 (0.10-0.31)	1.26 (0.92-1.78)
	rHBsAg	0.18 (0.13-0.29)	0.23 (0.16-0.34)	0.45 (0.26-0.55)	0.19 (0.11-0.43)	1.23 (0.98-2.08)
Total CD8+ T cells						
Day 0	Unstimulated	0.32 (0.18-0.51)	0.28 (0.15-0.58)	0.28 (0.13-0.47)	0.36 (0.22-0.65)	1.62 (0.88-2.14)
	rHBsAg	0.33 (0.16-0.68)	0.25 (0.12-0.56)	0.28 (0.15-0.42)	0.39 (0.25-0.68)	1.57 (0.97-2.13)
Day 7	Unstimulated	0.38 (0.21-0.60)	0.33 (0.16-0.70)	0.30 (0.19-0.44)	0.37 (0.24-0.66)	1.73 (1.23-2.10)
	rHBsAg	0.35 (0.14-0.65)	0.32 (0.16-0.55)	0.27 (0.15-0.44)	0.35 (0.21-0.62)	1.68 (1.29-2.35)
Day 28	Unstimulated	0.39 (0.18-0.68)	0.34 (0.17-0.64)	0.27 (0.17-0.43)	0.42 (0.23-0.65)	1.87 (1.36-2.70)
	rHBsAg	0.32 (0.19-0.49)	0.28 (0.14-0.73)	0.28 (0.15-0.41)	0.42 (0.23-0.72)	1.83 (1.27-2.47)
Month 6	Unstimulated	0.36 (0.20-0.62)	0.30 (0.17-0.65)	0.32 (0.15-0.43)	0.39 (0.26-0.66)	2.24 (1.50-3.12)
	rHBsAg	0.33 (0.15-0.62)	0.24 (0.11-0.56)	0.29 (0.14-0.41)	0.37 (0.24-0.67)	2.13 (1.45-3.29)
Month 7	Unstimulated	0.36 (0.19-0.66)	0.34 (0.15-0.69)	0.28 (0.16-0.43)	0.40 (0.26-0.63)	1.70 (1.43-2.27)
	rHBsAg	0.29 (0.18-0.58)	0.28 (0.12-0.57)	0.24 (0.16-0.40)	0.35 (0.21-0.75)	1.84 (1.34-2.29)
Month 12	Unstimulated	0.31 (0.18-0.52)	0.30 (0.16-0.63)	0.26 (0.17-0.41)	0.44 (0.22-0.64)	1.63 (1.07-2.30)
	rHBsAg	0.32 (0.20-0.40)	0.27 (0.10-0.67)	0.24 (0.15-0.39)	0.36 (0.21-0.82)	1.53 (1.03-2.39)

Supplement table 8 Raw data of cytokine production and CD107a expression of memory T cells in HIV+ standard dose group after recombinant HBsAg stimulation *in vitro*

Visit	Antigen	% Cytokine-producing and CD107a-expressing memory T cells				
		TNF- α	IFN- γ	IL-2	IL-10	CD107a
Memory CD4+ T cells						
Day 0	Unstimulated	0.19 (0.10-0.39)	0.16 (0.13-0.15)	0.18 (0.14-0.28)	0.17 (0.10-0.22)	1.58 (1.31-2.24)
	rHBsAg	0.19 (0.11-0.56)	0.16 (0.10-0.25)	0.17 (0.12-0.26)	0.21 (0.13-0.27)	1.70 (1.24-2.40)
Day 7	Unstimulated	0.20 (0.11-0.44)	0.18 (0.11-0.25)	0.18 (0.13-0.24)	0.16 (0.10-0.20)	1.73 (1.39-2.19)
	rHBsAg	0.20 (0.08-0.40)	0.15 (0.11-0.25)	0.18 (0.14-0.22)	0.17 (0.12-0.28)	1.80 (1.44-2.13)
Day 28	Unstimulated	0.18 (0.13-0.30)	0.18 (0.11-0.25)	0.19 (0.15-0.24)	0.15 (0.12-0.22)	1.86 (1.45-2.61)
	rHBsAg	0.19 (0.11-0.46)	0.17 (0.11-0.29)	0.19 (0.15-0.25)	0.20 (0.14-0.27)	1.81 (1.55-2.30)
Month 6	Unstimulated	0.23 (0.14-0.53)	0.17 (0.13-0.34)	0.18 (0.13-0.25)	0.14 (0.10-0.20)	2.52 (1.88-3.33)
	rHBsAg	0.26 (0.10-0.47)	0.23 (0.11-0.30)	0.18 (0.12-0.25)	0.20 (0.12-0.26)	2.55 (1.95-3.25)
Month 7	Unstimulated	0.22 (0.11-0.46)	0.21 (0.12-0.33)	0.17 (0.11-0.24)	0.17 (0.11-0.24)	1.82 (1.47-2.35)
	rHBsAg	0.22 (0.14-0.51)	0.16 (0.13-0.24)	0.20 (0.14-0.25)	0.18 (0.13-0.26)	1.84 (1.42-2.67)
Month 12	Unstimulated	0.24 (0.13-0.58)	0.17 (0.11-0.26)	0.17 (0.14-0.26)	0.16 (0.10-0.23)	1.70 (1.37-2.26)
	rHBsAg	0.26 (0.14-0.47)	0.18 (0.13-0.27)	0.19 (0.13-0.25)	0.19 (0.13-0.31)	1.68 (1.27-2.55)
Memory CD8+ T cells						
Day 0	Unstimulated	0.46 (0.19-0.72)	0.21 (0.11-0.65)	0.20 (0.13-0.32)	0.21 (0.13-0.38)	2.84 (2.04-4.07)
	rHBsAg	0.43 (0.19-0.82)	0.20 (0.08-0.50)	0.16 (0.11-0.36)	0.24 (0.12-0.43)	2.92 (2.12-4.32)
Day 7	Unstimulated	0.48 (0.18-0.87)	0.20 (0.09-0.64)	0.18 (0.13-0.37)	0.18 (0.14-0.34)	3.19 (2.17-4.42)
	rHBsAg	0.38 (0.14-0.88)	0.12 (0.08-0.52)	0.17 (0.10-0.31)	0.19 (0.11-0.33)	2.93 (2.31-4.27)
Day 28	Unstimulated	0.42 (0.20-0.74)	0.20 (0.12-0.63)	0.19 (0.12-0.33)	0.24 (0.13-0.35)	3.30 (2.55-4.67)
	rHBsAg	0.38 (0.22-0.68)	0.17 (0.10-0.74)	0.19 (0.12-0.34)	0.24 (0.12-0.42)	3.34 (2.37-4.33)
Month 6	Unstimulated	0.51 (0.23-0.87)	0.19 (0.09-0.47)	0.20 (0.10-0.32)	0.21 (0.10-0.33)	3.56 (2.78-5.68)
	rHBsAg	0.45 (0.22-0.76)	0.18 (0.07-0.48)	0.17 (0.10-0.31)	0.19 (0.10-0.37)	3.71 (2.77-5.80)
Month 7	Unstimulated	0.54 (0.22-0.92)	0.25 (0.13-0.57)	0.17 (0.13-0.35)	0.21 (0.14-0.41)	3.14 (2.51-4.33)
	rHBsAg	0.35 (0.23-0.78)	0.16 (0.07-0.43)	0.18 (0.08-0.35)	0.22 (0.13-0.35)	3.22 (2.43-4.44)
Month 12	Unstimulated	0.41 (0.17-0.85)	0.20 (0.08-0.67)	0.19 (0.10-0.27)	0.23 (0.13-0.41)	2.95 (2.04-3.63)
	rHBsAg	0.44 (0.23-0.88)	0.16 (0.07-0.61)	0.18 (0.09-0.32)	0.21 (0.14-0.40)	2.90 (1.83-4.28)

Supplement table 9 Raw data of cytokine production and CD107a expression of T cells in HIV+ four dose group after recombinant HBsAg stimulation *in vitro*

Visit	Antigen	% Cytokine-producing and CD107a-expressing total T cells				
		TNF- α	IFN- γ	IL-2	IL-10	CD107a
Total CD4+ T cells						
Day 0	Unstimulated	0.19 (0.12-0.33)	0.23 (0.14-0.34)	0.42 (0.29-0.53)	0.16 (0.06-0.33)	1.40 (1.09-1.72)
	rHBsAg	0.17 (0.09-0.27)	0.25 (0.16-0.30)	0.46 (0.31-0.63)	0.18 (0.08-0.33)	1.32 (1.11-1.66)
Day 7	Unstimulated	0.17 (0.11-0.28)	0.22 (0.14-0.31)	0.44 (0.32-0.56)	0.15 (0.07-0.30)	1.19 (1.00-1.66)
	rHBsAg	0.19 (0.12-0.33)	0.23 (0.14-0.38)	0.41 (0.31-0.68)	0.20 (0.08-0.33)	1.26 (0.93-1.68)
Day 28	Unstimulated	0.18 (0.10-0.33)	0.22 (0.16-0.30)	0.44 (0.29-0.54)	0.14 (0.06-0.36)	1.33 (1.07-1.70)
	rHBsAg	0.18 (0.10-0.33)	0.21 (0.14-0.31)	0.40 (0.28-0.53)	0.18 (0.08-0.32)	1.28 (0.97-1.72)
Month 2	Unstimulated	0.16 (0.11-0.32)	0.23 (0.15-0.32)	0.41 (0.27-0.60)	0.16 (0.07-0.28)	1.54 (1.10-1.95)
	rHBsAg	0.18 (0.10-0.31)	0.23 (0.14-0.31)	0.42 (0.27-0.57)	0.18 (0.08-0.38)	1.24 (1.07-1.77)
Month 6	Unstimulated	0.18 (0.12-0.37)	0.22 (0.16-0.35)	0.40 (0.28-0.57)	0.17 (0.07-0.28)	1.58 (1.17-2.20)
	rHBsAg	0.17 (0.12-0.26)	0.21 (0.12-0.37)	0.42 (0.30-0.59)	0.17 (0.10-0.34)	1.48 (1.10-1.98)
Month 7	Unstimulated	0.24 (0.11-0.36)	0.23 (0.14-0.35)	0.39 (0.29-0.58)	0.16 (0.06-0.25)	1.25 (1.07-1.97)
	rHBsAg	0.17 (0.12-0.26)	0.21 (0.12-0.37)	0.42 (0.30-0.59)	0.17 (0.10-0.34)	1.48 (1.10-1.98)
Month 12	Unstimulated	0.23 (0.12-0.29)	0.21 (0.11-0.41)	0.39 (0.29-0.54)	0.16 (0.06-0.29)	1.27 (1.02-1.67)
	rHBsAg	0.23 (0.10-0.30)	0.19 (0.10-0.33)	0.38 (0.24-0.50)	0.16 (0.07-0.25)	1.17 (0.93-1.63)
Total CD8+ T cells						
Day 0	Unstimulated	0.31 (0.21-0.42)	0.27 (0.09-0.59)	0.25 (0.14-0.47)	0.30 (0.13-0.67)	1.69 (1.16-2.39)
	rHBsAg	0.31 (0.17-0.41)	0.21 (0.08-0.42)	0.23 (0.14-0.44)	0.30 (0.14-0.78)	1.61 (1.13-2.34)
Day 7	Unstimulated	0.32 (0.19-0.47)	0.23 (0.09-0.39)	0.24 (0.15-0.44)	0.27 (0.12-0.61)	1.53 (1.08-2.17)
	rHBsAg	0.33 (0.21-0.48)	0.15 (0.07-0.30)	0.25 (0.12-0.38)	0.29 (0.13-0.79)	1.52 (1.17-2.00)
Day 28	Unstimulated	0.32 (0.19-0.50)	0.19 (0.07-0.45)	0.24 (0.13-0.42)	0.23 (0.12-0.66)	1.60 (1.18-2.16)
	rHBsAg	0.30 (0.15-0.49)	0.17 (0.06-0.43)	0.26 (0.13-0.40)	0.27 (0.13-0.71)	1.61 (1.13-2.02)
Month 2	Unstimulated	0.36 (0.21-0.54)	0.16 (0.07-0.50)	0.24 (0.14-0.39)	0.26 (0.13-0.59)	1.78 (1.36-2.50)
	rHBsAg	0.29 (0.18-0.49)	0.22 (0.07-0.50)	0.25 (0.12-0.40)	0.33 (0.14-0.53)	1.70 (1.30-2.53)
Month 6	Unstimulated	0.31 (0.17-0.58)	0.18 (0.09-0.33)	0.22 (0.12-0.38)	0.23 (0.13-0.56)	1.85 (1.43-2.82)
	rHBsAg	0.30 (0.16-0.46)	0.18 (0.06-0.30)	0.22 (0.13-0.36)	0.30 (0.12-0.49)	1.87 (1.39-3.04)
Month 7	Unstimulated	0.36 (0.17-0.55)	0.17 (0.07-0.32)	0.25 (0.12-0.38)	0.26 (0.08-0.45)	1.65 (1.23-2.33)
	rHBsAg	0.24 (0.13-0.54)	0.11 (0.04-0.28)	0.23 (0.12-0.37)	0.23 (0.10-0.50)	1.65 (1.09-2.76)
Month 12	Unstimulated	0.26 (0.18-0.42)	0.16 (0.06-0.25)	0.21 (0.12-0.37)	0.20 (0.08-0.45)	1.42 (1.08-2.29)
	rHBsAg	0.25 (0.16-0.37)	0.14 (0.04-0.31)	0.24 (0.11-0.35)	0.23 (0.08-0.44)	1.56 (1.05-2.05)

Supplement table 10 Raw data of cytokine production and CD107a expression of memory T cells in HIV+ four dose group after recombinant HBsAg stimulation *in vitro*

Visit	Antigen	% Cytokine-producing and CD107a-expressing memory T cells				
		TNF- α	IFN- γ	IL-2	IL-10	CD107a
Memory CD4+ T cells						
Day 0	Unstimulated	0.26 (0.15-0.45)	0.18 (0.15-0.21)	0.18 (0.12-0.21)	0.15 (0.08-0.19)	1.90 (1.38-3.06)
	rHBsAg	0.25 (0.13-0.50)	0.17 (0.12-0.25)	0.18 (0.12-0.23)	0.15 (0.11-0.22)	1.85 (1.40-2.51)
Day 7	Unstimulated	0.21 (0.15-0.40)	0.19 (0.11-0.30)	0.18 (0.13-0.26)	0.14 (0.08-0.19)	1.97 (1.51-2.69)
	rHBsAg	0.29 (0.15-0.45)	0.21 (0.13-0.25)	0.19 (0.12-0.29)	0.17 (0.09-0.26)	2.08 (1.39-2.46)
Day 28	Unstimulated	0.28 (0.16-0.44)	0.18 (0.14-0.25)	0.18 (0.14-0.25)	0.14 (0.09-0.21)	2.02 (1.48-2.88)
	rHBsAg	0.28 (0.12-0.40)	0.17 (0.12-0.26)	0.16 (0.14-0.24)	0.18 (0.11-0.26)	1.98 (1.45-2.79)
Month 2	Unstimulated	0.27 (0.17-0.41)	0.18 (0.13-0.28)	0.20 (0.15-0.26)	0.13 (0.10-0.19)	2.33 (1.76-2.86)
	rHBsAg	0.23 (0.17-0.39)	0.16 (0.13-0.23)	0.16 (0.13-0.24)	0.15 (0.09-0.24)	2.20 (1.55-2.69)
Month 6	Unstimulated	0.30 (0.19-0.48)	0.20 (0.13-0.27)	0.16 (0.13-0.23)	0.16 (0.08-0.19)	2.62 (1.85-3.42)
	rHBsAg	0.30 (0.18-0.51)	0.17 (0.14-0.23)	0.18 (0.13-0.24)	0.16 (0.11-0.22)	2.48 (1.90-3.31)
Month 7	Unstimulated	0.28 (0.18-0.52)	0.19 (0.14-0.26)	0.17 (0.13-0.26)	0.13 (0.07-0.22)	2.29 (1.66-2.92)
	rHBsAg	0.32 (0.18-0.49)	0.17 (0.13-0.25)	0.20 (0.13-0.27)	0.13 (0.07-0.19)	2.27 (1.78-2.84)
Month 12	Unstimulated	0.22 (0.17-0.40)	0.17 (0.13-0.25)	0.19 (0.13-0.22)	0.14 (0.08-0.20)	2.33 (1.59-2.58)
	rHBsAg	0.27 (0.20-0.42)	0.16 (0.13-0.23)	0.20 (0.15-0.25)	0.15 (0.09-0.22)	2.11 (1.61-2.79)
Memory CD8+ T cells						
Day 0	Unstimulated	0.29 (0.20-0.74)	0.18 (0.07-0.38)	0.14 (0.10-0.24)	0.25 (0.14-0.36)	3.16 (1.97-4.80)
	rHBsAg	0.38 (0.25-0.79)	0.12 (0.05-0.36)	0.16 (0.11-0.28)	0.23 (0.12-0.40)	2.86 (2.03-4.75)
Day 7	Unstimulated	0.35 (0.21-0.80)	0.14 (0.08-0.32)	0.18 (0.11-0.25)	0.22 (0.12-0.30)	3.18 (1.87-4.88)
	rHBsAg	0.39 (0.27-0.80)	0.13 (0.06-0.30)	0.15 (0.11-0.24)	0.22 (0.14-0.43)	3.00 (2.01-4.45)
Day 28	Unstimulated	0.36 (0.22-0.80)	0.20 (0.05-0.49)	0.13 (0.09-0.27)	0.22 (0.14-0.33)	3.16 (2.14-4.64)
	rHBsAg	0.39 (0.20-0.75)	0.14 (0.06-0.30)	0.15 (0.10-0.23)	0.23 (0.14-0.35)	3.13 (2.53-4.98)
Month 2	Unstimulated	0.38 (0.28-0.90)	0.16 (0.09-0.31)	0.19 (0.12-0.25)	0.18 (0.14-0.32)	3.50 (2.45-5.74)
	rHBsAg	0.44 (0.21-0.86)	0.14 (0.06-0.24)	0.18 (0.13-0.27)	0.20 (0.15-0.29)	3.69 (2.54-5.25)
Month 6	Unstimulated	0.52 (0.26-0.86)	0.11 (0.06-0.28)	0.16 (0.11-0.26)	0.18 (0.12-0.28)	4.13 (3.01-5.51)
	rHBsAg	0.48 (0.27-1.09)	0.11 (0.04-0.26)	0.16 (0.10-0.22)	0.21 (0.12-0.33)	4.02 (2.99-5.98)
Month 7	Unstimulated	0.45 (0.24-1.02)	0.12 (0.05-0.30)	0.15 (0.09-0.22)	0.17 (0.09-0.26)	3.34 (2.77-4.91)
	rHBsAg	0.43 (0.24-0.85)	0.09 (0.04-0.22)	0.15 (0.08-0.25)	0.17 (0.12-0.28)	3.38 (2.50-5.13)
Month 12	Unstimulated	0.51 (0.20-0.79)	0.12 (0.04-0.24)	0.13 (0.10-0.18)	0.14 (0.10-0.25)	3.45 (2.16-4.49)
	rHBsAg	0.41 (0.21-0.76)	0.07 (0.04-0.23)	0.14 (0.08-0.24)	0.18 (0.12-0.29)	3.51 (2.58-4.49)

Supplement table 11 Raw data of cytokine production and CD107a expression of T cells in HIV+ four double dose group after recombinant HBsAg stimulation *in vitro*

Visit	Antigen	% Cytokine-producing and CD107a-expressing total T cells				
		TNF- α	IFN- γ	IL-2	IL-10	CD107a
Total CD4+ T cells						
Day 0	Unstimulated	0.25 (0.11-0.41)	0.24 (0.15-0.38)	0.46 (0.33-0.60)	0.17 (0.06-0.29)	1.24 (0.98-1.65)
	rHBsAg	0.21 (0.10-0.33)	0.21 (0.13-0.34)	0.45 (0.34-0.57)	0.18 (0.07-0.33)	1.19 (0.91-1.66)
Day 7	Unstimulated	0.20 (0.12-0.34)	0.24 (0.14-0.43)	0.45 (0.34-0.55)	0.15 (0.09-0.33)	1.30 (1.01-1.77)
	rHBsAg	0.17 (0.12-0.38)	0.18 (0.12-0.34)	0.44 (0.32-0.56)	0.15 (0.08-0.32)	1.21 (0.98-1.75)
Day 28	Unstimulated	0.17 (0.10-0.50)	0.24 (0.13-0.38)	0.45 (0.30-0.57)	0.17 (0.06-0.33)	1.39 (1.03-1.70)
	rHBsAg	0.16 (0.11-0.37)	0.19 (0.14-0.33)	0.40 (0.29-0.60)	0.18 (0.08-0.36)	1.23 (0.90-1.58)
Month 2	Unstimulated	0.19 (0.10-0.34)	0.27 (0.14-0.33)	0.47 (0.32-0.58)	0.17 (0.09-0.32)	1.49 (1.06-1.92)
	rHBsAg	0.20 (0.12-0.35)	0.21 (0.14-0.29)	0.41 (0.34-0.58)	0.18 (0.09-0.31)	1.44 (1.02-1.83)
Month 6	Unstimulated	0.17 (0.11-0.35)	0.23 (0.13-0.46)	0.41 (0.29-0.64)	0.16 (0.08-0.31)	1.59 (1.17-2.07)
	rHBsAg	0.18 (0.13-0.41)	0.22 (0.13-0.31)	0.41 (0.33-0.58)	0.16 (0.10-0.33)	1.38 (1.09-2.14)
Month 7	Unstimulated	0.19 (0.11-0.37)	0.24 (0.12-0.33)	0.44 (0.28-0.52)	0.14 (0.07-0.31)	1.61 (1.04-1.98)
	rHBsAg	0.19 (0.14-0.34)	0.20 (0.13-0.38)	0.43 (0.28-0.59)	0.15 (0.08-0.34)	1.43 (1.02-1.90)
Month 12	Unstimulated	0.18 (0.12-0.30)	0.21 (0.13-0.32)	0.41 (0.35-0.53)	0.14 (0.08-0.35)	1.32 (0.97-1.88)
	rHBsAg	0.20 (0.11-0.39)	0.21 (0.11-0.31)	0.44 (0.30-0.62)	0.15 (0.08-0.34)	1.22 (0.90-1.71)
Total CD8+ T cells						
Day 0	Unstimulated	0.34 (0.15-0.59)	0.20 (0.08-0.43)	0.29 (0.15-0.35)	0.30 (0.13-0.49)	1.50 (1.20-1.89)
	rHBsAg	0.29 (0.21-0.45)	0.13 (0.04-0.42)	0.27 (0.14-0.36)	0.26 (0.15-0.60)	1.50 (1.12-1.97)
Day 7	Unstimulated	0.33 (0.19-0.69)	0.18 (0.07-0.41)	0.25 (0.16-0.40)	0.23 (0.13-0.52)	1.62 (1.23-2.26)
	rHBsAg	0.30 (0.18-0.43)	0.09 (0.05-0.35)	0.22 (0.14-0.37)	0.23 (0.10-0.54)	1.60 (1.17-2.10)
Day 28	Unstimulated	0.33 (0.17-0.86)	0.18 (0.09-0.35)	0.27 (0.13-0.39)	0.24 (0.16-0.53)	1.64 (1.16-2.58)
	rHBsAg	0.25 (0.18-0.42)	0.13 (0.04-0.32)	0.23 (0.15-0.39)	0.25 (0.14-0.47)	1.59 (1.06-2.29)
Month 2	Unstimulated	0.34 (0.16-0.62)	0.23 (0.09-0.44)	0.23 (0.13-0.44)	0.26 (0.17-0.61)	1.77 (1.41-2.59)
	rHBsAg	0.29 (0.20-0.55)	0.16 (0.06-0.41)	0.26 (0.15-0.41)	0.29 (0.18-0.59)	1.93 (1.34-2.59)
Month 6	Unstimulated	0.34 (0.20-0.54)	0.17 (0.10-0.41)	0.24 (0.16-0.39)	0.26 (0.14-0.52)	2.02 (1.36-2.38)
	rHBsAg	0.27 (0.14-0.62)	0.11 (0.06-0.32)	0.22 (0.14-0.40)	0.22 (0.11-0.53)	1.93 (1.34-2.24)
Month 7	Unstimulated	0.36 (0.17-0.64)	0.13 (0.06-0.41)	0.23 (0.12-0.37)	0.29 (0.14-0.52)	1.90 (1.17-2.50)
	rHBsAg	0.26 (0.15-0.50)	0.12 (0.07-0.38)	0.20 (0.13-0.40)	0.25 (0.11-0.53)	1.71 (1.40-2.31)
Month 12	Unstimulated	0.34 (0.19-0.42)	0.15 (0.07-0.39)	0.24 (0.13-0.39)	0.26 (0.14-0.53)	1.55 (1.22-2.11)
	rHBsAg	0.31 (0.19-0.58)	0.10 (0.04-0.33)	0.21 (0.15-0.41)	0.26 (0.12-0.49)	1.60 (1.15-2.01)

Supplement table 12 Raw data of cytokine production and CD107a expression of memory T cells in HIV+ four double dose group after recombinant HBsAg stimulation *in vitro*

Visit	Antigen	% Cytokine-producing and CD107a-expressing memory T cells				
		TNF- α	IFN- γ	IL-2	IL-10	CD107a
Memory CD4+ T cells						
Day 0	Unstimulated	0.28 (0.18-0.50)	0.18 (0.12-0.25)	0.16 (0.13-0.23)	0.15 (0.09-0.19)	1.82 (1.63-2.61)
	rHBsAg	0.30 (0.19-0.44)	0.18 (0.12-0.24)	0.17 (0.13-0.23)	0.17 (0.09-0.21)	1.91 (1.55-2.53)
Day 7	Unstimulated	0.28 (0.20-0.54)	0.20 (0.14-0.29)	0.19 (0.13-0.27)	0.13 (0.08-0.21)	2.35 (1.55-2.96)
	rHBsAg	0.24 (0.19-0.46)	0.18 (0.11-0.26)	0.19 (0.14-0.27)	0.14 (0.08-0.21)	2.23 (1.69-2.73)
Day 28	Unstimulated	0.27 (0.16-0.55)	0.14 (0.11-0.26)	0.16 (0.10-0.22)	0.14 (0.08-0.22)	2.24 (1.50-3.23)
	rHBsAg	0.25 (0.14-0.44)	0.15 (0.10-0.25)	0.16 (0.11-0.21)	0.15 (0.10-0.23)	1.93 (1.53-2.54)
Month 2	Unstimulated	0.32 (0.18-0.43)	0.18 (0.15-0.25)	0.17 (0.12-0.23)	0.16 (0.09-0.22)	2.36 (1.71-3.36)
	rHBsAg	0.30 (0.19-0.53)	0.17 (0.12-0.25)	0.17 (0.13-0.26)	0.15 (0.10-0.19)	2.17 (1.76-2.95)
Month 6	Unstimulated	0.27 (0.18-0.44)	0.20 (0.15-0.25)	0.17 (0.13-0.23)	0.15 (0.08-0.18)	2.43 (1.97-3.71)
	rHBsAg	0.29 (0.18-0.48)	0.19 (0.11-0.27)	0.18 (0.14-0.21)	0.16 (0.12-0.20)	2.30 (1.94-3.14)
Month 7	Unstimulated	0.26 (0.18-0.57)	0.18 (0.12-0.25)	0.16 (0.13-0.23)	0.15 (0.07-0.20)	2.34 (1.72-3.32)
	rHBsAg	0.29 (0.20-0.52)	0.17 (0.12-0.22)	0.19 (0.14-0.29)	0.15 (0.07-0.21)	2.50 (1.94-3.16)
Month 12	Unstimulated	0.24 (0.17-0.48)	0.17 (0.11-0.25)	0.18 (0.14-0.25)	0.14 (0.08-0.18)	2.20 (1.56-2.90)
	rHBsAg	0.29 (0.20-0.45)	0.16 (0.10-0.24)	0.18 (0.13-0.29)	0.14 (0.10-0.21)	2.08 (1.46-2.79)
Memory CD8+ T cells						
Day 0	Unstimulated	0.62 (0.23-0.91)	0.13 (0.06-0.41)	0.17 (0.10-0.22)	0.20 (0.12-0.38)	3.12 (2.39-4.67)
	rHBsAg	0.43 (0.28-0.74)	0.12 (0.04-0.37)	0.18 (0.10-0.26)	0.20 (0.10-0.28)	3.34 (2.22-4.25)
Day 7	Unstimulated	0.54 (0.34-0.90)	0.13 (0.07-0.33)	0.16 (0.12-0.20)	0.17 (0.14-0.29)	3.68 (2.57-5.28)
	rHBsAg	0.45 (0.23-0.67)	0.11 (0.03-0.25)	0.14 (0.09-0.19)	0.13 (0.08-0.22)	3.47 (2.67-5.18)
Day 28	Unstimulated	0.40 (0.27-0.91)	0.17 (0.07-0.42)	0.14 (0.11-0.25)	0.19 (0.11-0.27)	3.20 (2.45-5.91)
	rHBsAg	0.35 (0.25-0.82)	0.14 (0.04-0.35)	0.16 (0.11-0.25)	0.17 (0.09-0.25)	3.26 (2.30-5.52)
Month 2	Unstimulated	0.57 (0.33-0.98)	0.13 (0.07-0.40)	0.16 (0.10-0.22)	0.20 (0.13-0.27)	4.15 (3.14-5.29)
	rHBsAg	0.55 (0.38-0.85)	0.15 (0.04-0.31)	0.17 (0.11-0.23)	0.18 (0.11-0.33)	4.16 (3.07-6.00)
Month 6	Unstimulated	0.53 (0.31-1.00)	0.16 (0.07-0.35)	0.18 (0.12-0.21)	0.18 (0.10-0.27)	4.24 (2.85-5.87)
	rHBsAg	0.52 (0.29-0.88)	0.13 (0.04-0.24)	0.14 (0.10-0.21)	0.15 (0.09-0.28)	4.20 (2.76-5.22)
Month 7	Unstimulated	0.60 (0.36-1.02)	0.15 (0.07-0.30)	0.14 (0.09-0.20)	0.19 (0.11-0.28)	3.86 (2.66-5.30)
	rHBsAg	0.50 (0.26-0.77)	0.14 (0.03-0.21)	0.13 (0.09-0.21)	0.16 (0.09-0.25)	4.06 (2.91-5.89)
Month 12	Unstimulated	0.49 (0.23-0.90)	0.13 (0.05-0.28)	0.16 (0.11-0.28)	0.16 (0.11-0.20)	0.18 (0.09-0.27)
	rHBsAg	0.44 (0.24-0.93)	0.10 (0.03-0.25)	0.13 (0.09-0.19)	0.17 (0.10-0.24)	3.62 (2.62-4.87)

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