

Raw data used for this manuscript

Supplemental table S1: Original data used for figure 1A

		DC : PBMC ratio ¹				
		CD54	Mock 1:2	Mock 1:10	calKK β 1:2	calKK β 1:10
24h	EXP1 ²		0.6	0.8	0.9	1.2
	EXP2		1.0	1.3	2.9	2.5
	EXP3		1.6	1.6	3.6	2.7
	EXP4		2.4	1.8	4.8	6.9
48h	EXP1		1.0	1.0	1.2	1.5
	EXP2		1.3	1.5	3.4	2.2
	EXP3		1.4	1.1	3.5	2.5
	EXP4		2.0	1.7	5.3	4.8
		CD69				
24h	EXP1		2.3	1.3	7.6	3.4
	EXP2		2.0	1.5	5.9	2.5
	EXP3		2.1	1.5	5.3	2.6
	EXP4		2.6	1.3	8.4	5.1
48h	EXP1		2.3	1.3	7.1	3.6
	EXP2		2.1	1.2	8.5	2.9
	EXP3		2.8	1.4	10.5	3.5
	EXP4		2.8	1.7	8.8	4.3
		CD25				
24h	EXP1		1.2	1.1	3.1	2.3
	EXP2		1.9	0.7	2.4	1.3
	EXP3		1.3	1.3	3.5	1.9
	EXP4		2.2	1.7	9.3	7.7
48h	EXP1		1.5	1.2	7.4	2.1
	EXP2		1.6	1.5	5.2	2.2
	EXP3		1.5	1.2	3.7	1.9
	EXP4		1.7	1.5	5.2	2.5
Average	CD54 24h		1.4	1.4	3.0	3.3
	CD54 48h		1.4	1.3	3.3	2.7
	CD69 24h		2.3	1.4	6.8	3.4
	CD69 48h		2.5	1.4	8.7	3.6
	CD25 24h		1.6	1.2	4.6	3.3
	CD25 48h		1.6	1.4	5.3	2.2
SEM ³	CD54 24h		0.4	0.2	0.8	1.2
	CD54 48h		0.2	0.2	0.8	0.7
	CD69 24h		0.1	0.1	0.7	0.6
	CD69 48h		0.2	0.1	0.7	0.3
	CD25 24h		0.2	0.2	1.6	1.5
	CD25 48h		0.1	0.1	0.8	0.1

¹Indicated is the fold induction (the surface marker expression of each condition was calculated relative to the MFI of PBMCs alone). ²EXP=experiment. ³SEM=standard error of the mean.

Supplemental table S2: Original data used for figure 1B

		DC : NK cell ratio ¹				
		CD54	Mock 5:1	Mock 1:1	calKK β 5:1	calKK β 1:1
24h	EXP1 ²		2.2	1.8	4.9	4.4
	EXP2		2.1	1.5	6.3	6.0
	EXP3		2.7	2.2	5.6	5.7
	EXP4		2.2	2.0	3.9	4.8
48h	EXP1		3.4	2.9	4.5	4.5
	EXP2		1.5	1.4	4.4	3.6
	EXP3		2.9	2.3	6.3	6.8
	EXP4		2.8	2.2	3.9	4.2
		CD69				
24h	EXP1		2.0	1.6	4.6	3.9
	EXP2		2.3	1.5	7.6	6.1
	EXP3		1.6	1.7	3.6	3.7
	EXP4		1.6	2.1	5.9	5.6
48h	EXP1		2.7	2.2	6.8	7.2
	EXP2		1.6	1.3	3.4	3.7
	EXP3		2.1	2.2	4.7	4.9
	EXP4		2.5	2.5	10.1	9.1
		CD25				
24h	EXP1		1.9	1.4	5.3	4.1
	EXP2		2.2	1.4	6.8	5.2
	EXP3		1.8	1.6	5.6	5.4
	EXP4		1.4	1.3	6.3	5.4
48h	EXP1		3.4	3.0	8.2	7.3
	EXP2		1.5	1.3	4.3	3.8
	EXP3		2.8	2.0	10.6	9.5
	EXP4		2.3	1.4	12.3	9.6
Average	CD54 24h		2.3	1.9	5.2	5.2
	CD54 48h		2.7	2.2	4.8	4.8
	CD69 24h		1.9	1.7	5.4	4.8
	CD69 48h		2.2	2.1	6.3	6.2
	CD25 24h		1.8	1.4	6.0	5.0
	CD25 48h		2.5	1.9	8.9	7.6
SEM ³	CD54 24h		0.1	0.2	0.5	0.4
	CD54 48h		0.4	0.3	0.5	0.7
	CD69 24h		0.2	0.1	0.9	0.6
	CD69 48h		0.2	0.2	1.5	1.2
	CD25 24h		0.2	0.1	0.3	0.3
	CD25 48h		0.4	0.4	1.7	1.4

¹Indicated is the fold induction (the surface marker expression of each condition was calculated relative to the MFI of NK cells alone). ²EXP=experiment. ³SEM=standard error of the mean.

Supplemental table S3: Original data used for figure 2A

		DC : PBMC ratio ¹						
	IL-12p70	PBMC only	Mock only	Mock 1:2	Mock 1:10	calKK β only	calKK β 1:2	calKK β 1:10
24h	EXP1 ²	-0.62	-2.26	-2.01	0.23	233.82	155.81	66.15
	EXP2	-2.38	-1.55	-0.54	-1.72	229.51	97.83	37.93
	EXP3	-2.18	-1.55	-1.50	-2.33	1352.88	984.09	311.48
	EXP4	-1.89	-0.71	-0.76	-0.70	340.25	363.15	36.59
	EXP5	-1.05	-1.69	-1.29	-1.16	72.13	61.97	10.64
	EXP6	-0.53	-1.46	0.16	-0.79	330.06	152.09	56.82
	EXP7	-1.58	-1.56	-1.46	-0.80	771.98	787.97	352.20
48h	EXP1	-2.51	-2.15	-0.30	-2.16	1365.78	1169.03	331.44
	EXP2	-0.56	-0.69	-1.07	-0.44	307.75	278.47	28.23
	EXP3	-0.67	-1.95	-1.17	-1.38	66.85	59.85	7.97
	EXP4	-0.19	-0.24	0.71	-0.91	232.93	144.09	43.05
	IFNγ							
24h	EXP1	31.48	-10.72	-3.27	-9.09	485.84	1747.20	722.18
	EXP2	-23.15	-9.37	232.92	21.72	889.33	5455.27	1834.92
	EXP3	456.09	32.59	81.53	5.13	331.97	4477.24	1020.97
	EXP4	-3.43	-18.20	32.72	14.87	190.23	9848.75	617.75
	EXP5	29.90	6.89	42.75	44.13	495.99	3127.76	808.98
	EXP6	7.81	-5.09	41.25	23.31	92.10	2628.58	1727.04
	EXP7	58.30	17.32	66.16	38.49	777.83	28191.77	21163.67
48h	EXP1	-7.96	-7.64	1976.32	-0.94	274.60	9677.16	5833.13
	EXP2	-6.81	-4.07	57.44	7.34	2083.40	16811.56	2173.89
	EXP3	13.13	7.63	159.92	21.35	857.36	3801.04	2885.30
	EXP4	12.68	17.43	282.36	54.20	278.46	4303.85	3672.77
	TNFα							
24h	EXP1	4.80	3.24	13.09	10.88	22.21	112.09	121.33
	EXP2	3.44	5.48	11.90	5.53	24.42	80.72	203.43
	EXP3	2.14	2.02	106.08	9.34	65.69	176.38	125.86
	EXP4	5.79	1.18	6.83	19.66	15.20	80.35	112.10
	EXP5	7.60	3.43	8.35	31.24	48.03	110.96	133.42
	EXP6	120.20	3.90	15.62	38.84	57.00	103.34	250.70
	EXP7	13.60	-1.05	4.75	11.03	44.93	97.48	281.52
48h	EXP1	-1.17	-0.58	7.11	1.69	26.62	33.50	45.69
	EXP2	1.26	1.31	2.71	1.67	12.02	22.34	16.44
	EXP3	4.02	2.30	6.25	8.05	15.38	20.62	35.71
	EXP4	6.23	1.78	4.98	6.94	18.29	23.88	94.22
Average	IL-12p70 24h	-1.46	-1.54	-1.06	-1.04	475.81	371.85	124.54
	IL-12p70 48h	-0.98	-1.26	-0.46	-1.22	493.33	412.86	102.67
	IFN γ 24h	79.57	1.92	70.58	19.79	466.18	7925.22	3985.07
	IFN γ 48h	2.76	3.34	619.01	20.49	873.46	8648.40	3641.27
	TNF α 24h	22.51	2.60	23.80	18.08	39.64	108.76	175.48
	TNF α 48h	2.58	1.20	5.26	4.59	18.08	25.08	48.02

SEM³	IL-12p70 24h	0.28	0.17	0.27	0.31	167.53	139.23	54.11
	IL-12p70 48h	0.52	0.47	0.44	0.37	295.14	256.05	76.59
	IFN γ 24h	63.54	6.80	28.87	6.95	110.36	3524.27	2868.90
	IFN γ 48h	5.86	5.72	454.77	12.14	425.92	3028.58	792.15
	TNF α 24h	16.34	0.80	13.79	4.74	7.26	12.29	26.22
	TNF α 48h	1.61	0.63	0.96	1.70	3.12	2.88	16.55

¹Indicated is the average cytokine concentration [pg/ml]. ²EXP=experiment. ³SEM=standard error of the mean.

Supplemental table S4: Original data used for figure 2B

		DC : NK ratio¹						
	IL-12p70	NK only	Mock only	Mock 5:1	Mock 1:1	calKKβ only	calKKβ 5:1	calKKβ 1:1
24h	EXP1 ²	0.80	0.03	-0.02	-0.13	132.72	104.28	170.36
	EXP2	0.05	0.75	1.97	-0.43	84.71	103.19	150.94
	EXP3	-1.62	-1.91	-2.26	-2.19	257.26	288.59	599.22
	EXP4	-2.76	-2.00	-1.38	-1.43	75.48	126.82	206.14
	EXP5	-1.17	-0.07	-1.86	-1.63	737.26	902.12	1463.81
48h	EXP1	-0.04	0.22	-0.25	0.57	138.61	150.25	194.96
	EXP2	-1.50	-1.35	-0.43	-2.13	259.69	318.98	577.89
	EXP3	-2.42	-2.86	-1.90	-0.62	78.32	167.42	262.82
	EXP4	-2.04	-2.96	-1.62	-0.82	741.32	1026.18	1746.96
IFNγ								
24h	EXP1	25.45	-3.78	14.17	36.66	190.03	2122.99	12230.29
	EXP2	8.29	-6.99	1.96	15.77	65.97	1152.30	6145.85
	EXP3	21.13	0.10	-11.30	30.29	154.29	3983.28	30613.84
	EXP4	272.33	2.08	48.17	149.59	259.61	8020.44	38891.01
	EXP5	407.75	32.62	48.15	263.59	705.29	17262.21	62703.46
48h	EXP1	44.46	17.85	14.11	33.26	391.20	2396.53	13242.23
	EXP2	26.14	2.54	3.22	31.65	546.69	8019.10	39626.24
	EXP3	304.29	30.01	110.34	312.70	970.00	18317.92	61664.08
	EXP4	385.94	34.17	165.86	379.80	938.76	24990.44	81342.22
TNFα								
24h	EXP1	5.82	3.90	3.82	4.08	19.03	19.85	32.29
	EXP2	3.65	1.48	0.94	0.35	19.54	22.82	41.07
	EXP3	14.67	0.51	1.33	1.04	29.76	33.60	74.53
	EXP4	9.20	4.40	5.50	0.19	18.01	35.44	29.00
	EXP5	34.18	1.39	0.69	1.92	59.00	72.14	160.56
48h	EXP1	2.53	-0.31	-0.28	-0.46	5.71	6.45	12.06
	EXP2	1.44	0.37	2.37	0.67	2.46	15.18	7.17
	EXP3	20.01	0.58	2.29	5.17	16.79	24.04	82.65
	EXP4	8.84	-0.94	-0.91	0.00	6.26	25.35	56.22

Average	IL-12p70 24h	-0.94	-0.64	-0.71	-1.16	257.49	305.00	518.09
	IL-12p70 48h	-1.50	-1.74	-1.05	-0.75	304.49	415.71	695.66
	IFN γ 24h	146.99	4.81	20.23	99.18	275.04	6508.24	30116.89
	IFN γ 48h	190.21	21.14	73.38	189.35	711.66	13431.00	48968.69
	TNF α 24h	13.50	2.34	2.46	1.52	29.07	36.77	67.49
	TNF α 48h	8.21	-0.08	0.87	1.35	7.81	17.76	39.53
SEM³	IL-12p70 24h	0.63	0.56	0.77	0.38	124.24	153.23	250.40
	IL-12p70 48h	0.52	0.75	0.42	0.55	150.42	206.99	360.23
	IFN γ 24h	81.72	7.13	12.09	47.53	112.00	2934.51	10083.79
	IFN γ 48h	91.05	7.10	39.11	91.62	143.82	5070.76	14642.63
	TNF α 24h	5.49	0.76	0.94	0.71	7.78	9.34	24.63
	TNF α 48h	4.26	0.35	0.85	1.30	3.11	4.39	18.12

¹Indicated is the average cytokine concentration [pg/ml]. ²EXP=experiment. ³SEM=standard error of the mean.

Supplemental table S5: Original data used for figure 3B

		Transwell¹			
	CD54	I²	II	III.1	III.2
	EXP1 ³	-	4114.6	7284.6	11311.4
	EXP2	3028.3	3129.6	5194.8	8034.8
	EXP3	2610.5	3574.9	10805.9	7192.8
	EXP4	1974.3	2954.4	6263.7	20842.1
	EXP5	3737.2	6702.1	13447.1	21256.5
	CD69				
	EXP1	-	61.0	78.7	162.9
	EXP2	33.3	54.1	76.1	190.1
	EXP3	29.7	55.3	83.5	126.2
	EXP4	67.7	99.8	132.2	189.7
	EXP5	31.7	103.3	212.8	355.3
	CD25				
	EXP1	-	950.6	1056.3	3648.6
	EXP2	1135.8	1031.5	1243.9	4953.4
	EXP3	893.6	1158.2	1370.0	3299.4
	EXP4	1166.5	1486.5	1832.3	18644.9
	EXP5	3248.3	5282.7	7912.1	48440.2
Average	CD54	2837.6	4095.1	8599.2	13727.5
	CD69	40.6	74.7	116.7	204.8
	CD25	1611.0	1981.9	2682.9	15797.3
SEM⁴	CD54	370.0	681.9	1535.3	3068.0
	CD69	9.1	11.0	26.2	39.4
	CD25	549.2	830.3	1313.5	8645.9

¹Indicated is the mean fluorescence intensity. ²See Fig. 3A for detailed description. ³EXP=experiment.

⁴SEM=standard error of the mean.

Supplemental table S6: Original data used for figure 3C

		Transwell ¹		
IL-12p70		I ²	II	III
	EXP1 ³	-	567.03	516.99
	EXP2	0.16	206.08	257.94
	EXP3	-1.08	327.49	304.06
	EXP4	-0.42	111.22	130.27
	EXP5	-1.91	943.86	849.22
IFN γ				
	EXP1	-	808.65	11654.11
	EXP2	11.69	1296.23	9435.40
	EXP3	-15.62	681.51	21756.85
	EXP4	13.67	1808.82	39835.22
	EXP5	55.27	1956.50	36764.38
TNF α				
	EXP1	-	43.43	85.64
	EXP2	-0.14	9.76	23.65
	EXP3	0.16	5.75	23.35
	EXP4	-0.76	20.15	49.19
	EXP5	-1.38	21.92	38.89
Average				
	IL-12p70	-0.81	431.14	411.70
	IFN γ	16.25	1310.34	23889.19
	TNF α	-0.53	20.20	44.14
SEM ⁴				
	IL-12p70	0.44	149.18	125.89
	IFN γ	14.62	256.25	6257.80
	TNF α	0.34	6.56	11.46

¹Indicated is the average cytokine concentration [pg/ml]. ²See Fig. 3A for detailed description. ³EXP=experiment. ⁴SEM=standard error of the mean.

Supplemental table S7: Original data used for figure 4A

Tetramer	Mock + no peptide ¹	Mock + MeIA peptide	calKK β + no peptide	calKK β + MeIA peptide
EXP1 ²	0.05	0.23	0.04	0.61
EXP2	0.05	0.07	0.05	0.52
EXP3	0.09	0.16	0.22	1.62
EXP4	0.04	0.16	0.03	0.26
Average	0.06	0.16	0.09	0.75
SEM ³	0.01	0.03	0.05	0.30

¹Indicated are percentage of MeIA-specific CD8⁺ T cells [%]. ²EXP=experiment. ³SEM=standard error of the mean

Supplemental table S8: Original data used for figure 4B

CD69	Mock + no peptide¹	Mock + MeIA peptide	calKKβ + no peptide	calKKβ + MeIA peptide
EXP1 ²	7809.78	7784.73	15344.13	13736.74
EXP2	610.59	590.92	14314.50	14136.72
EXP3	512.99	453.33	12849.25	12488.35
EXP4	639.92	734.09	8226.75	8869.02
Average	2393.32	2390.77	12683.66	12307.71
SEM³	1805.69	1798.90	1571.34	1198.77

¹Indicated is the average mean fluorescence intensity. ²EXP=experiment. ³SEM=standard error of the mean

Supplemental table S9: Original data used for figure 5A

tumor : cell ratio		DC : PBMC ratio¹			
		Mock 1:2	Mock 1:10	calKKβ 1:2	calKKβ 1:10
1:20	EXP1 ²	5.5	6.8	28.0	41.5
	EXP2	2.4	1.6	41.9	48.3
	EXP3	12.4	4.1	20.1	41.7
1:6	EXP1	3.4	2.2	10.7	16.0
	EXP2	1.8	-0.9	28.7	38.2
	EXP3	1.1	-1.1	8.4	37.5
1:2	EXP1	0.5	-0.2	4.6	5.8
	EXP2	-0.2	0.4	14.0	17.7
	EXP3	1.8	1.8	3.9	12.4
3:2	EXP1	2.3	1.3	2.5	3.1
	EXP2	-0.3	0.6	4.5	4.7
	EXP3	1.1	-1.5	0.4	5.3
Average	1:20	6.8	4.2	30.0	43.8
	1:6	2.1	0.1	15.9	30.6
	1:2	0.7	0.7	7.5	12.0
	3:2	1.1	0.1	2.5	4.3
SEM³	1:20	3.0	1.5	6.4	2.2
	1:6	0.7	1.1	6.4	7.3
	1:2	0.6	0.6	3.2	3.4
	3:2	0.8	0.8	1.2	0.7

¹Indicated are relative lysis in [%]. ²EXP=experiment. ³SEM=standard error of the mean.

Supplemental table S10: Original data used for figure 5B

tumor : cell ratio		DC : NK cell ratio ¹			
		Mock 5:1	Mock 1:1	calKK β 5:1	calKK β 1:1
1:20	EXP1 ²	1.6	-1.6	18.1	34.7
	EXP2	1.7	-4.2	27.9	33.1
	EXP3	6.6	6.6	18.8	35.7
1:6	EXP1	1.3	-3.2	9.5	16.2
	EXP2	-5.4	-6.2	28.9	25.8
	EXP3	-0.9	-1.9	7.5	4.7
1:2	EXP1	-2.9	0.6	3.5	10.8
	EXP2	-6.5	-8.1	12.7	13.7
	EXP3	-0.9	-5.6	13.1	3.8
3:2	EXP1	-1.0	-1.9	2.9	4.5
	EXP2	-3.7	-4.4	1.0	8.9
	EXP3	4.7	2.8	2.8	10.3
Average					
Average	1:20	3.3	0.3	21.6	34.5
	1:6	-1.7	-3.8	15.3	15.6
	1:2	-3.4	-4.4	9.8	9.4
	3:2	0.0	-1.2	2.2	7.9
SEM³					
SEM ³	1:20	1.6	3.2	3.2	0.8
	1:6	2.0	1.3	6.8	6.1
	1:2	1.6	2.6	3.1	3.0
	3:2	2.5	2.1	0.6	1.8

¹Indicated are relative lysis in [%]. ²EXP=experiment. ³SEM=standard error of the mean.

Supplemental table S11: Original data used for Supplemental figure S5

		DC : NK ratio ¹				
		CD54	Mock 5:1	Mock 1:1	calKK β 5:1	calKK β 1:1
	EXP1 ²	3496.4	3223.8	11829.9	12805.3	
	EXP2	5183.1	2504.5	27567.2	21678.6	
	EXP3	8332.4	3195.5	9274.2	10782.8	
	EXP4	12128.8	6528.6	15702.7	25958.5	
		CD69				
	EXP1	422.7	297.0	1178.4	1187.9	
	EXP2	101.0	49.3	146.5	182.2	
	EXP3	152.8	111.2	79.2	87.1	
	EXP4	254.2	178.8	189.0	348.9	
		CD25				
	EXP1	4118.4	3145.6	7670.0	6326.8	
	EXP2	4202.6	1980.2	45049.1	22177.4	
	EXP3	5155.6	2749.6	7803.9	6894.9	
	EXP4	23356.1	9008.1	102602.1	85940.0	
Average	CD54	7285.2	3863.1	16093.5	17806.3	
	CD69	232.7	159.1	398.3	451.5	
	CD25	9208.2	4220.9	40781.3	30334.8	
SEM³	CD54	1900.2	903.9	4046.4	3603.1	
	CD69	35.8	23.9	38.8	92.6	
	CD25	4721.8	1614.0	22405.1	18895.1	

¹Indicated is the average mean fluorescence intensity. ²EXP=experiment. ³SEM=standard error of the mean.