

**Supplementary Table S1. Primers used in this study**

Gene	PCR	Primer	Sequence
Universal	cDNA	BSL-18E	AAAGCGGCCCGCATGCTTTTTTTTTTTTTTTTTT VN
	Adaptor	P10EA	GGGAATTCGG
	1st, 2nd	P20EA	TAATACGACTCCGAATTCCC
	Tag	P22EA- ST1-R	GTCTCGTGGGCTCGGAGATGTGTATAAGAGAC AGCTAATACGACTCCGAATTCCC
TCR $\delta$	1st PCR	TRDC1(2)	GTGGAGTGCACAGTTTTATTG
	2nd PCR	TRDC2	GGAGAGATGACAATAGCAGGA
	Tag PCR	TRDC-ST1- R	TCGTCGGCAGCGTCAGATGTGTATAAGAGACA GGAATTCCTTCACCAGACA

**Supplementary Table S2. Factors associated with V $\gamma$ 9V $\delta$ 2 T-cell expansion in the small scale culture test**

		Sufficient proliferation	Insufficient proliferation	p-value
		n=32*	n=35	
Gender, M:F	Male	17	27	0.0702
	Female	15	8	
Age	median (range)	62.5(33-86)	63(38-82)	0.236
	mean $\pm$ SD	62 $\pm$ 11.4	65 $\pm$ 10.2	
Total number of prior therapies	median (range)	4(2-10)	3(2-8)	0.264
	mean $\pm$ SD	4.2 $\pm$ 1.8	3.9 $\pm$ 1.7	
Surgery		16	12	0.2916
Radiation		15	16	1
Contents of regimen*				
Platinum combination		28	32	0.9003
Taxane		19	27	0.1928
Pemetrexed		21	22	1
TKI or ALK inhibitor		15	12	0.4237
Checkpoint blockade		4	6	0.9003
Percentage of V $\gamma$ 9V $\delta$ 2 T-cells in PBMC	median (range)	1.6 (0.3-7.8)	0.5 (0.1-2.7)	0.0000565
	mean $\pm$ SD	2.02 $\pm$ 1.67	0.73 $\pm$ 0.61	

\*One patient (72-year-old male) with insufficient information about regimen content was excluded.

**Supplementary Table S3. Purity of V $\gamma$ 9V $\delta$ 2 T-cells for therapy**

	Purity of V $\gamma$ 9V $\delta$ 2 T-cells in administered cells (%)					
	n	mean	95%CI		SE	P-value
			lower	upper		
1st injection	25	87.21	83.02	93.78	2.60	-
2nd injection	25	91.89	89.24	95.12	1.42	0.4376
3rd injection	24	91.33	88.54	94.72	1.49	0.4715
4th injection	21	91.97	89.63	94.62	1.20	0.6752
5th injection	19	92.67	90.33	95.29	1.18	0.4483
6th injection	16	94.96	92.79	97.31	1.06	0.0371
7th injection	10	93.22	89.16	97.62	1.87	0.265
12th injection	5	88.04	77.86	98.90	3.79	0.6361

**Supplementary Table S4. Numbers of V $\gamma$ 9V $\delta$ 2 T-cells administered**

	numbers of administered V $\gamma$ 9V $\delta$ 2 T-cells ( $\times 10^8$ )					
	n	mean	95%CI		SE	P-value
			lower	upper		
1st injection	25	39.36	37.82	56.40	4.50	-
2nd injection	25	41.92	40.18	56.38	3.92	0.8766
3rd injection	24	42.19	41.76	58.64	4.08	0.6031
4th injection	21	42.93	41.22	61.97	4.98	0.4942
5th injection	19	38.14	37.19	55.76	4.42	0.9905
6th injection	16	49.70	44.24	59.40	3.55	0.6023
7th injection	10	52.98	45.40	63.62	4.09	0.4541
12th injection	5	40.01	18.58	76.70	10.47	0.8239

**Supplementary Table S5. Increase of CD69<sup>+</sup> V $\gamma$ 9V $\delta$ 2 T-cells (%) from PBMC to cultured cell product**

	n	Percent CD69 <sup>+</sup> V $\gamma$ 9V $\delta$ 2 T-cells				P-value
		mean	95%CI		SE	
			lower	upper		
1st injection	25	54.12	60.75	50.23	2.55	-
2nd injection	25	46.27	55.03	42.6	3.01	0.1403
3rd injection	25	46.26	54.23	42.58	2.82	0.0859
4th injection	22	44.63	56.17	39.78	3.94	0.0985
5th injection	20	46.79	57.41	41.87	3.71	0.2049
6th injection	18	40.92	54.47	35.69	4.45	0.1016

**Supplementary Table S6. Percentages of NKG2D<sup>+</sup> V $\gamma$ 9V $\delta$ 2 T-cells**

	n	Percent NKG2D <sup>+</sup> V $\gamma$ 9V $\delta$ 2 T-cells				P-value
		mean	95%CI		SE	
			lower	upper		
1st injection	25	99.05	99.57	98.55	0.25	-
2nd injection	25	98.8	99.45	98.17	0.31	0.4628
3rd injection	25	98.66	99.46	97.89	0.38	0.4517
4th injection	22	98.04	99.11	97.02	0.5	0.133
5th injection	21	98	99.45	96.64	0.67	0.424
6th injection	18	98.15	99.37	96.98	0.57	0.2719

**Supplementary Table S7. Function of administered V $\gamma$ 9V $\delta$ 2 T-cells**

	n	mean	95%CI		SE
			lower	upper	
CD107 assay (%)	25	38.89	34.69	50.78	3.90
Cytotoxicity assay(%)	24	44.83	40.20	58.81	4.50

**Supplementary Table S8. Summary of endpoints**

N = 25

Progression-free survival	
Median PFS, days (95% CI)	95.0 (73.0-132.0)
3-month PFS, % (95% CI)	50.2 (32.6-65.4)
Overall survival	
Median OS, days (95% CI)	418.0 (179.0-479.0)
3-month OS, % (95% CI)	96.0 (80.9-99.2)
Response	
Best overall response, n (%)	
Complete response	0 (0)
Partial response	1 (4)
Stable disease	16 (64)
Long SD	4 (16)
Progressive disease	8 (32)
Objective response rate, % (95% CI)	4.0 (0.1-20.4)
Disease control rate, % (95% CI)	68.0 (46.5-85.1)

Long SD was defined as SD with time to progression >180 days.

ORR was defined as the proportion of treated patients achieving a best response of PR or CR.

DCR was defined as the proportion of treated patients achieving a PR, CR, or SD.