

**Supplementary Table 1.** Stage 1: Priming and CD8<sup>+</sup> T<sub>RM</sub> precursor formation.

Stage1: Priming and precursor development			Tissue	Model	References
TCR Affinity	Low		Lung	Influenza	(50)
			Brain	Polyomavirus	(48)
	High		Brain	Polyomavirus	(49)
Antigen presentation	DCs cross-priming		Skin	VV	(60)
			Lung	VV	(60)
				Humanized tumor model	(61)
Route of infection	Dependent	Oral	SI IEL	LM	(42)
Cytokines	IL-12	Inhibit	Spleen	LCMV, LM	(69)
	IL-10	Induce	Lung	a-CD40ab-PolyIC-HIVenvpeptides	(70)

Table abbreviations: LM: listeria monocytogenes; LCMV: lymphocytic choriomeningitis virus; VV: vaccinia virus; SI: Small intestine; IEL: Intraepithelial lymphocytes.