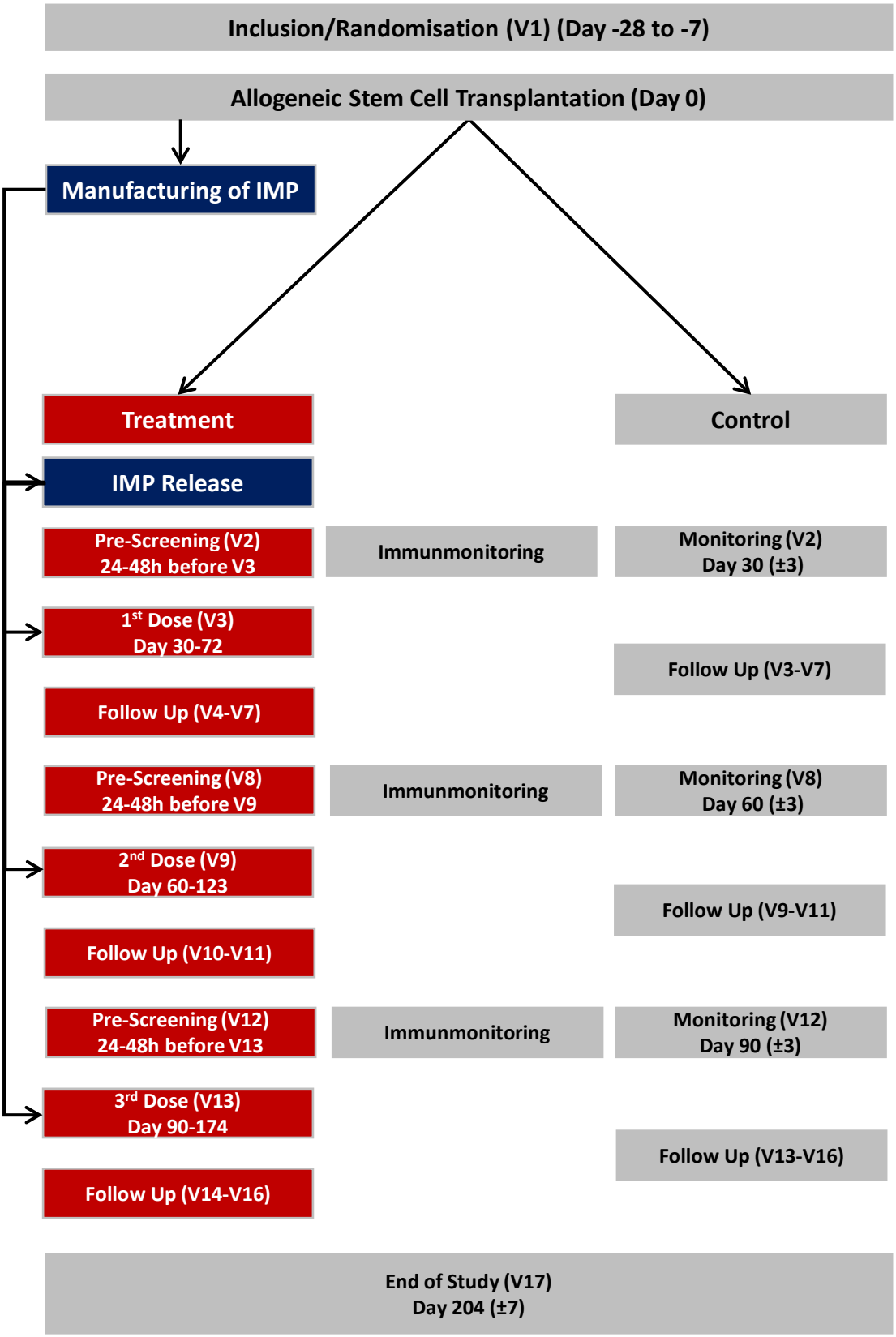
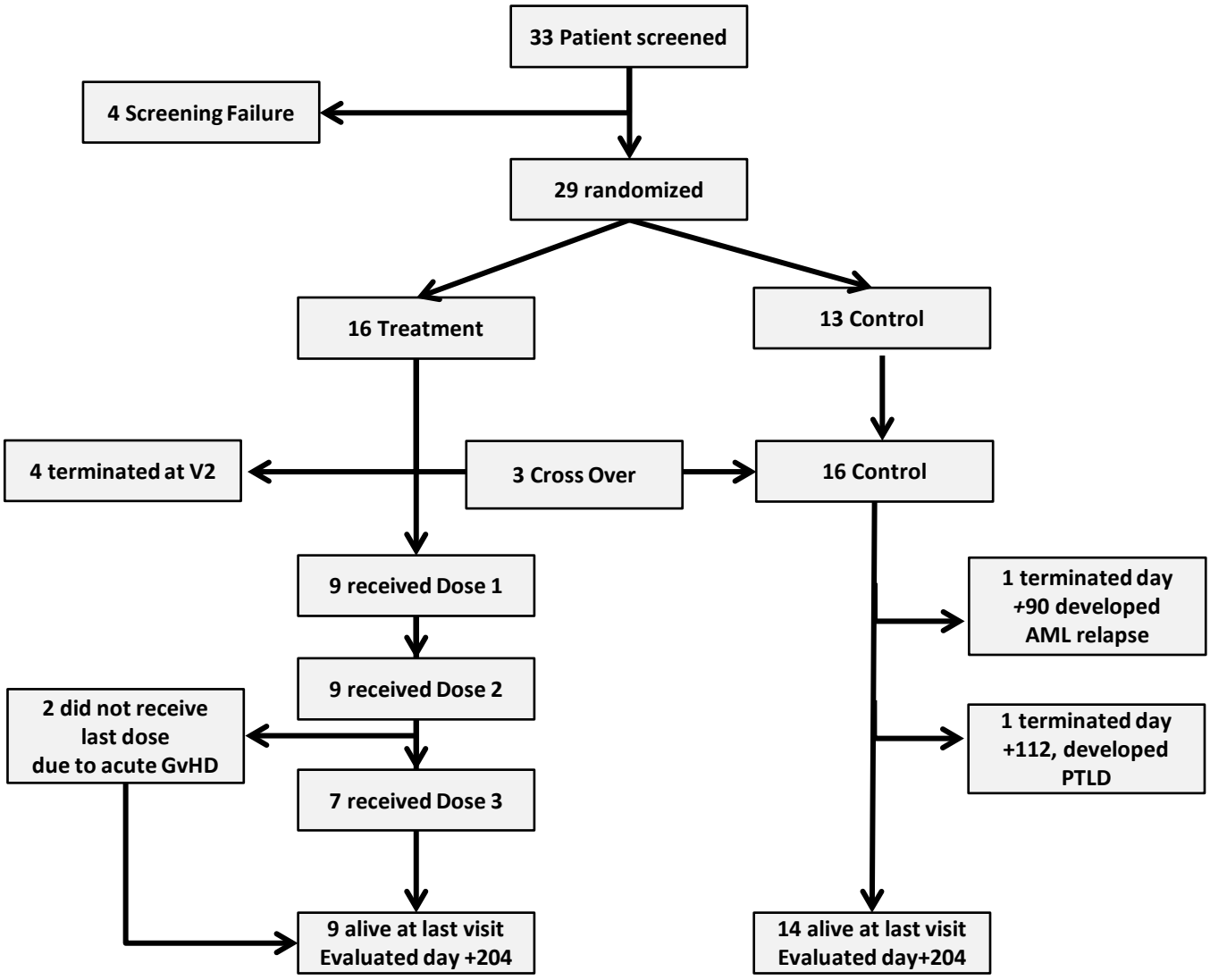
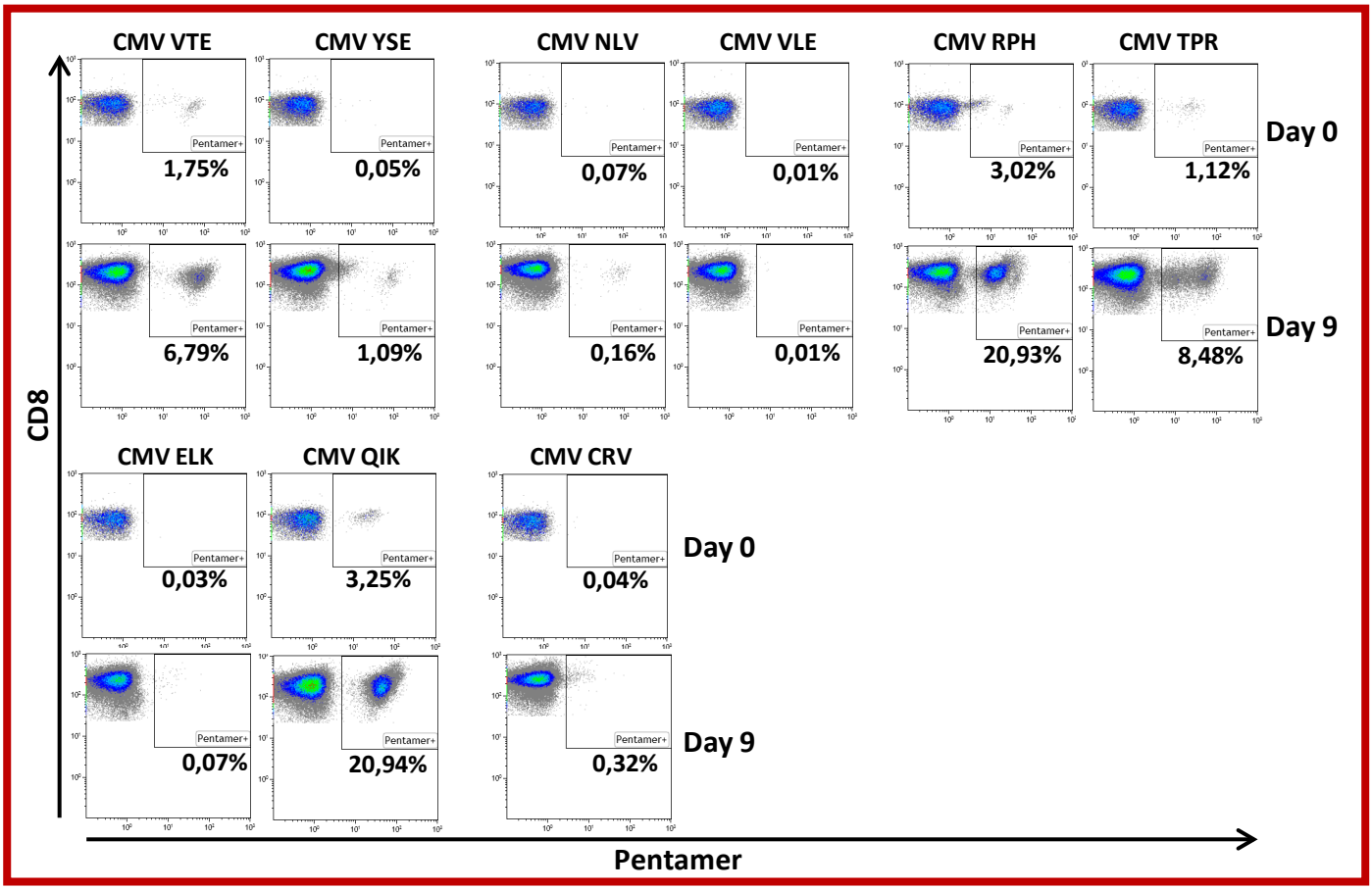
Supplementary Figure 1

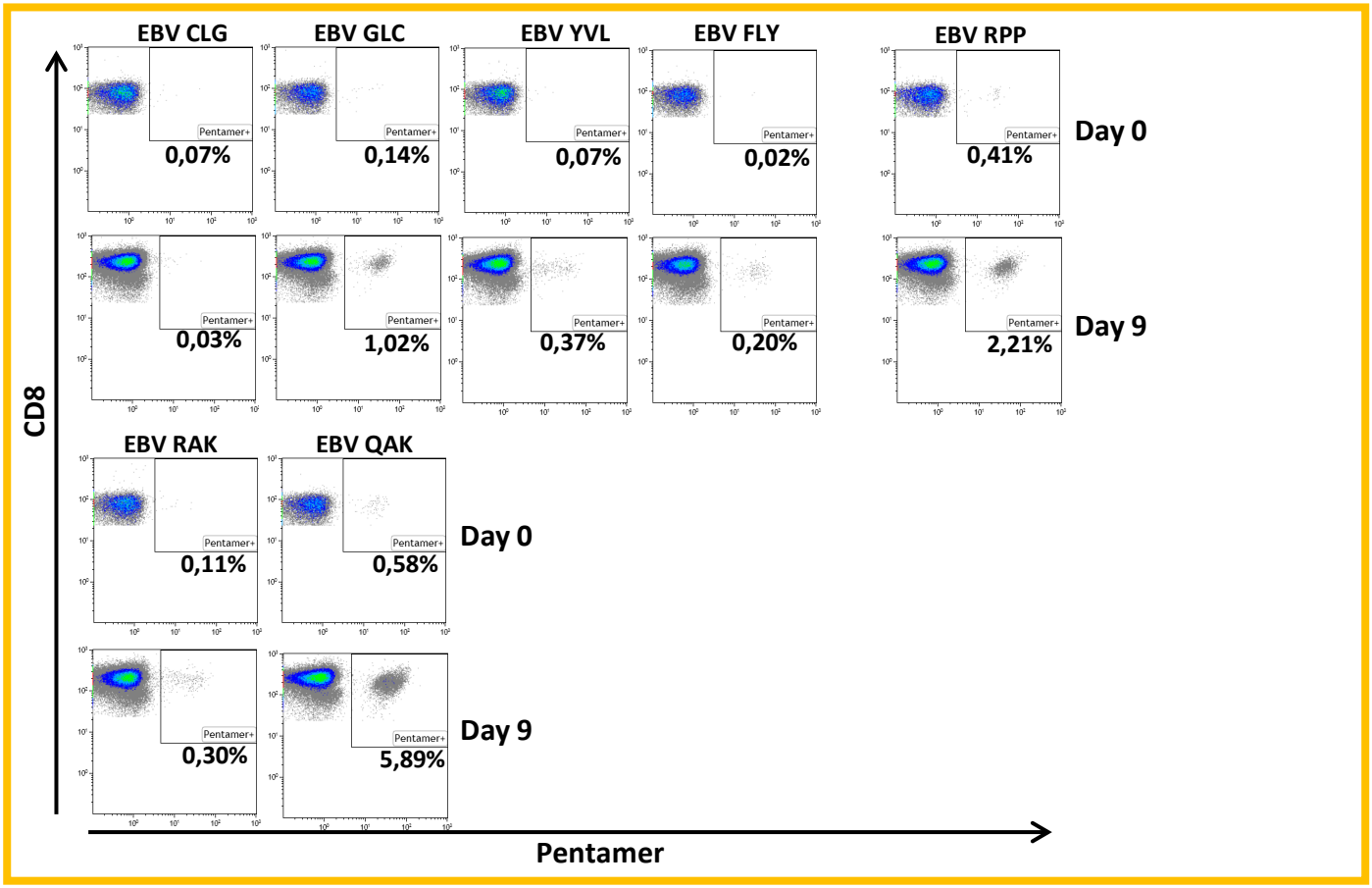


Supplementary Figure 2

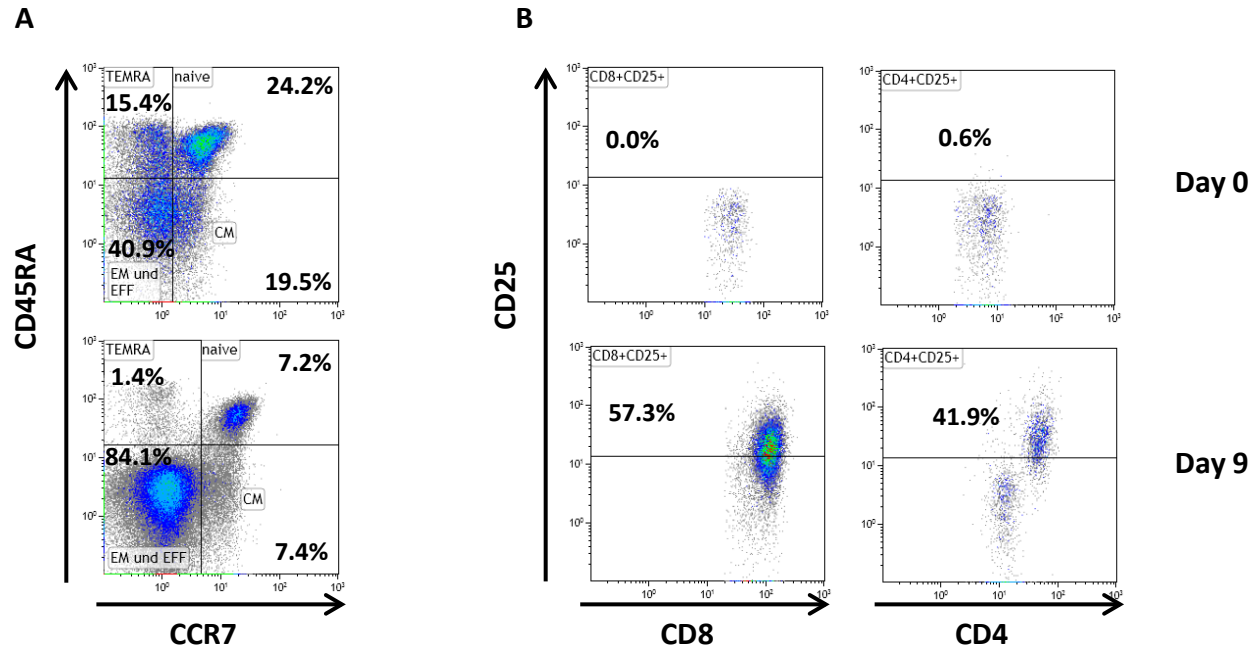


Supplementary Figure 3

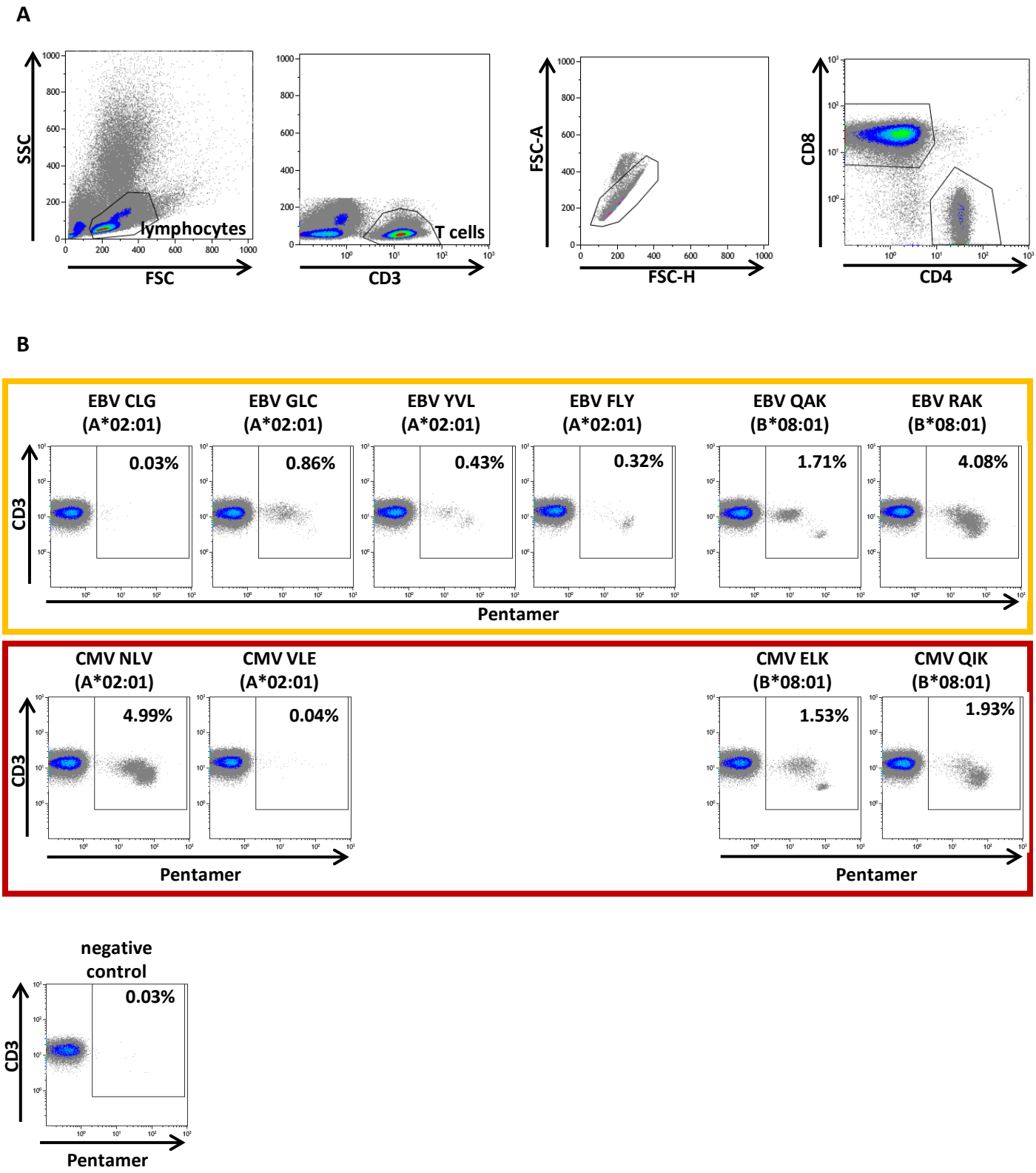




Supplementary Figure 4



Supplementary Figure 5



Supplementary Table 1

Inclusion Criteria	Male or female between 18 and 75 years of age
	Able to give to understand and consent to the study protocol. Ability to follow guidance by the study personal.
	Written informed consent present after consultation by the study PI or delegate.
	Hematologic or oncologic disease with indication for allogeneic stem cell transplantation
	GCSF mobilized peripheral blood stem cells as stem cell source.
	Presence of at least one HLA gene locus as listed in addendum of the study protocol.
	CMV-serostatus known (positive or negative)
	EBV-serostatus known (positive or negative)
	Female patients: menopausal, or adequate contraception for 12 months
Inclusion Criteria Donor	HLA match 10/10, related or unrelated
	EBV-serostatus positive
	CMV-serostatus positive
Exclusion Criteria Host	Bone marrow or cord blood as stem cell source.
	Alemtuzumab (Campath®) containing conditioning regimen, or application less than 30 days before stem cell transplantation.
	Clinically relevant comorbidity with Sorror score greater than 3
	Other severe conditions and organ dysfunction (cardiac insufficiency, NYHA III-IV, active Hepatitis B, severe respiratory insufficiency).
	Severe psychological/psychiatric disorder.
	Any other disease or medical condition that is not compatible with participation in the study, after evaluation by the PI.
	Known allergy against any ingredient of the study drug (DMSO).
	Pregnancy or breastfeeding
	Dependency or any relationships between sponsor or PI.
	Planned absence after treatment that interferes with visit schedule.
	Participation in other clinical trials with application of not approved substances.
Exclusion Criteria Donor	EBV-serostatus negative
	CMV-serostatus negative
Additional inclusion criteria before each application of the IMP	No signs of acute infection (Temp. >38.0C)
	Any other disease or medical condition that is not compatible with participation in the study, after evaluation by the PI.
	No clinical or laboratory evidence for acute GvHD Glucksberg II-IV
	No systemic therapy with prednisolon (or equivalent) >0.5mg/kg bodyweight.
	No steroid refractory GvHD