

Dynamic Imaging of Chimeric Antigen Receptor T Cells with [¹⁸F]Tetrafluoroborate Positron Emission Tomography/Computed Tomography

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Materials

Name	Company	Catalog Number	Comments
22 Gauge needle	Covidien	8881250206	
28 gauge insulin syringe	BD	329461	
96 well plate	Corning	3595	
Anti-human (ETNL) NIS	Imanis	REA009	ETNL antibody binds the cytosolic C-terminus of NIS
Anti-human BCMA, clone 19F2, PE-Cy7	BioLegend	357507	Flow antibody
Anti-human CD45, clone HI30, BV421	BioLegend	304032	Flow antibody
Anti-mouse CD45, clone 30-F11, APC-Cy7	BioLegend	103116	Flow antibody
Anti-rabbit IgG	R&D	F0110	Secondary antibody for NIS staining
BCMA-CAR construct, second generation	IDT, Coralville, IA		
BD Cytofix/Cytoperm Fixation/Permeabilization Solution Kit	BD	554714	
CD3 Monoclonal Antibody (OKT3), PE, eBioscience	Invitrogen	12-0037-42	
CTS (Cell Therapy Systems) Dynabeads CD3/CD28	Gibco	40203D	
CytoFLEX System B5-R3-V5	Beckman Coulter	C04652	flow cytometer
Dimethyl sulfoxide	Millipore Sigma	D2650-100ML	
Disposable Syringes with Luer-Lok Tips	BD	309646	
D-Luciferin, Potassium Salt	Gold Biotechnology	LUCK-1G	

D-PBS (Dulbecco's phosphate-buffered saline)	Gibco	14190-144	
Dulbecco's Phosphate-Buffered Saline	Gibco	14190-144	
Dynabeads MPC-S (Magnetic Particle Concentrator)	Applied Biosystems	A13346	
Easy 50 EasySep Magnet	STEMCELL Technologies	18002	
EasySep Human T Cell Isolation Kit	STEMCELL Technologies	17951	negative selection magnetic beads; 17951RF includes tips and buffer
Fetal bovine serum	Millipore Sigma	F8067	
Goat anti-Mouse IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor 647	Invitrogen	A-21235	
Inveon Multiple Modality PET/CT scanner	Siemens Medical Solutions USA, Inc.	10506989 VFT 000 03	
Isoflurane liquid	Piramal Critical Care	66794-017-10	
IVIS Lumina S5 Imaging System	PerkinElmer	CLS148588	
IVIS® Spectrum In Vivo Imaging System	PerkinElmer	124262	
Lipofectamine 3000 Transfection Reagent	Invitrogen	L3000075	
LIVE/DEAD Fixable Aqua Dead Cell Stain Kit, for 405 nm excitation	Invitrogen	L34966	
Lymphoprep	STEMCELL Technologies	07851	
Nalgene Rapid-Flow 500 mL Vacuum Filter, 0.22 µm, sterile	Thermo Scientific	450-0020	
Nalgene Rapid-Flow 500 mL Vacuum Filter, 0.45 µm, sterile	Thermo Scientific	450-0045	
NOD.Cg-Prkdcscid Il2rgtm1Wjl/SzJ	Jackson laboratory	05557	
OPM-2	DSMZ	CRL-3273	multiple myeloma cell line
pBMN(CMV-copGFP-Luc2-Puro)	Addgene	80389	lentiviral vector encoding luciferase-GFP
Penicillin-Streptomycin-Glutamine (100x), Liquid	Gibco	10378-016	
PMOD software	PMOD	PBAS and P3D	
Pooled Human AB Serum Plasma Derived	Innovative Research	IPLA-SERAB-H-100ML	
Puromycin Dihydrochloride	MP Biomedicals, Inc.	0210055210	
RoboSep-S	STEMCELL Technologies	21000	Fully Automated Cell Separator
RPMI (Roswell Park Memorial Institute (RPMI) 1640 Medium)	Gibco	21870-076	
SepMate-50 (IVD)	STEMCELL Technologies	85450	density gradient separation tubes
Sodium Azide, 5% (w/v)	Ricca Chemical	7144.8-16	
T175 flask	Corning	353112	
Terrell (isoflurane, USP)	Piramal Critical Care Inc	66794-019-10	
Webcol Alcohol Prep	Covidien	6818	
X-VIVO 15 Serum-free Hematopoietic Cell Medium	Lonza	04-418Q	