

Pfefferle et al. - Targeted macrophage reprogramming in the liver

Resource table

Experiment models

Mouse strain	Compagny
C57BL/6J	Charles River
Ms4a3 ^{Cre}	Prof. Florent Ginhoux (SingHealth and Duke NUS, Singapore)
Ai14 ^{tdTomato}	Jackson Laboratories
B6.Cg-Tg(TcraTcrb)425Cbn/J (OT-2)	Swiss Immunological Mouse repository (SwimMR)
C57BL/6-Tg(TcraTcrb)1100Mjb/J (OT-1)	Swiss Immunological Mouse repository (SwimMR)
B6.SJL-Ptprca Pepcb/BoyJ (CD45.1)	Swiss Immunological Mouse repository (SwimMR)
LysM ^{Cre}	Swiss Immunological Mouse repository (SwimMR)
Clec4f ^{Cre}	Jackson laboratories
CD40 ^{fl/fl}	Generated in our laboratory
Tumor cell line	Compagny
GFP ⁺ MC38 colon murine adenocarcinoma cells	Obtained from Dr Rok Humar (University Hospital of Zürich, USZ)

Reagents for in vivo or in vitro treatments

Product name	Compagny	Catalogue number
Rat anti-mouse Ter119	InVivoPLus	BE0183
Mouse anti-mouse Ter119	CSL Behring	Not commercialized
IgG2 Isotype Control Antibody	InVivoPLus	BP0085-5MG-R
Rat anti-mouse CD40 agonistic antibody	InVivoPLus	BP0016-2
Etanercept 50 mg (Enbrel) injectable solution	Pfizer	3514981
Rat anti-mouse CD3e antibody	BioXCell	BE001-1
Ketamine	Graeub	QN01AX03
Xylazine	Bayer	QN05CM92
Acepromazine	Fatro	QN05AA04
Lipopolysaccharide (LPS) from Escherichia coli O111:B4	Sigma-aldrich	L2630

Antibodies for flow cytometry

Targeted antigen	Clone	Fluorochrome	Specie	Compagny	Identifier
RBC glycoprotein	TER119	Phycoerythrin (PE)	Rat	Biologend	116215
F4/80	T45-2342	Allophycocyanin (APC)	Rat	BD	566787
F4/80	T45-2342	Phycoerythrin (PE)	Rat	BD	565410
CD11b	M1/70	APC-Cy7	Rat	Biologend	101226
CD45	30-F11	Brilliant violet 421	Rat	Biologend	103134
CD45.1	A20	Brilliant violet 711	Rat	Biologend	110739
CD45.2	104	Pacific blue	Rat	Biologend	109820
CD4	GK1.5	Phycoerythrin (PE)	Rat	Biologend	100408
CD8	53-6.7	Phycoerythrin (PE)	Rat	Biologend	100708
Rat IgG	-	Alexa Fluor 555	Goat	Invitrogen	A21434
Tru Stain FcXtmPLUS _{CD16/32}	S17011E	-	Rat	Biologend	156604

Primary antibodies for immunofluorescence

Targeted antigen	Clone	Fluorochrome	Specie	Compagny	Identifier
Iba1	Polyclonal	-	Rabbit	Wako	019-19741
F4/80	D2S9R	-	Rabbit	Cellsignal	70076
HMOX1	Polyclonal	-	Rabbit	Enzo	ADI-SPA-896

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Secondary antibodies for immunofluorescence

Targeted antigen	Clone	Fluorochrome	Specie	Compagny	Identifier
Anti-rabbit IgG	-	Alexa Fluor 555	Goat	Invitrogen	A-21434
anti-Rabbit HRP	-	HRP	Goat	PerkinElmer	ARR1001KT

Antibodies for single-cell RNA seq with feature barcoding

Targeted antigen	Compagny	Identifier
TotalSeq™ B0301-B0304 Anti-mouse Hashtag antibodies	Biolegend	155831, 155833, 155835, 155837

Fluorescent dyes

Product name	Compagny	Catalogue number
LIVE/DEAD™ Fixable Near-IR Dead Cell Stain Kit	Invitrogen	L10119
Alexa Fluor 488 Phalloidin	ThermoFischer	A12379
CellTrace™ Far Red Cell Proliferation Kit, for flow cytometry (CFSE)	ThermoFischer	C34564
IVISense 680	PerkinElmer	nev12000
Hoechst 33342	ThermoFischer	62249
DAPI spectral solution	PerkElmer	NEL810001KT
Red phRodo Cell Labeling Kit for Incucyte® Phagocytosis Assays	Sartorius	4649
Opal 520 Reagent Pack	Akoya Bioscience	FP1487001KT
Opal 570 Reagent Pack	Akoya Bioscience	FP1488001KT
Opal 620 Reagent Pack	Akoya Bioscience	FP1495001KT

Magnetic beads, magnets and associated antibodies

Product name	Compagny	Catalogue number
Anti-Rat IgG Dynabeads	Invitrogen	11035
Rat anti-mouse F4/80 IgG2a antibodies (clone T45-2342)	BD biosciences	565409
Rat anti-mouse CD11b IgG antibodies (clone M1/70)	Biolegend	101202
DynaMag magnet	Invitrogen	12321D
EasyEights™ EasySep™ Magnet	Stemcell	18103
MagniSort™ Mouse CD4 T cell Enrichment Kit	Invitrogen	8804-6821-74
MagniSort™ Mouse CD8 T cell Enrichment Kit	Invitrogen	8804-6822-74
MagniSort™ Mouse CD45 Positive Selection Kit	Invitrogen	8802-6865-74

Solutions, medium, supplement and enzymes

Product name	Compagny	Catalogue number
Phosphate buffered Saline (PBS)	Gibco	10010-015
HBSS	Gibco	14025092
RPMI-1640 Medium	Gibco	11835-063
Dulbecco's MEM	Merck	1469C
Fetales bovines Serum	Sigma-Aldrich	50615
L-Glutamine (200 mM)	ThermoFischer	25030024
Sodium-Pyruvate	Sigma	P2256
MEM Non-Essential Amino Acids Solution (100X)	Gibco	11140050
Penicillin-Streptomycin	ThermoFischer	15140-122
Collagenase B	Roche	11088815001
Liberase	Roche	5401119001
Collagenase Type IV	Stemcell	7427
Dnase I	Roche	10269638001
UltraPure™ 0.5M EDTA, pH 8.0	ThermoFisher	15575020

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Versene	Gibco	15040066
Calciumchlorid	Sigma-Aldrich	C1016-2.5KG
Percoll plus	Cytiva	GE17-5445-02
RLT Buffer	Qiagen	79216

Peptides, and Recombinant proteins

Product name	Compagny	Catalogue number
EndoFit Ovalbumin (Chicken egg albumin; for in vivo use)	InvivoGen	17E10-MM
Recombinant Murine M-CSF	Peptotech	315-02
20% Human Serum Albumin	CSL Behring AG	3665734
Bovine serum albumin	Newark	16009-13-5
MACS Buffer BSA Stock Solution	Miltenyi Biotec	130-091-376

Chemicals

Product name	Compagny	Catalogue number
Paraformaldehyde (PFA) powder 95%	Sigma-Aldrich	158127
Tween-20	Sigma-Aldrich	P1379
Triton X-100	Sigma-Aldrich	X100
RBC Lysis Buffer (10X)	Biolegend	420301

Critical Commercial Assays

Product name	Compagny	Catalogue number
UltraComp eBeads™ Compensation Beads	ThermoFisher	01-2222-42
Bio-Plex Pro™ Mouse Cytokine ICAM-1 Set	Bio Rad	171GA010M
Bio-Plex Pro™ Mouse Cytokine IL-6 Set	Bio Rad	171G5007M
Bio-Plex Pro™ Mouse Cytokine MCP-1 (MCAF) Set	Bio Rad	171G5019M
Bio-Plex Pro™ Mouse Cytokine MIP-1β Set	BioRad	171G5021M
Bio-Plex Pro™ Mouse Cytokine RANTES	BioRad	171G5022M
Bio-Plex Pro™ Mouse Cytokine TNF-α Set	Bio Rad	171G5023M
Bio-Plex Pro™ Mouse Cytokine IL-12 (p70)	Bio Rad	171G5011M
Bio-Plex Pro™ Mouse Cytokine IL-12 (p40)	Bio Rad	171G5010M
Bio-Plex Pro™ Mouse Cytokine Standards Group I	Bio Rad	171I50001
Bio-Plex Pro™ Mouse Cytokine Standards Group III	Bio Rad	171IA0001
Opal 4 color anti-Rabbit Manual IHC Kit	Akoya Biosciences	NEL840001KT
AR6 Buffer	PerkinElmer	AR600250ML
Antibody block solution	PerkinElmer	ARD1001EA
Antibody diluent	PerkinElmer	ARD1001EA
Opal Polymer anti-Rabbit HRP	PerkinElmer	ARR1001KT
Opal Polymer anti-Rabbit HRP Diluent	PerkinElmer	ARR1001KT
ProLong™ Gold Antifade Mountant	ThermoFisher	P36930
VECTASTAIN® Elite ABC-HRP Kit, Peroxidase (Rabbit IgG)	Vector Laboratories	PK-6101
Chromium Next GEM Single Cell 3' Kit v3.1, 4 rxns	10x Genomics	PN-1000269
Dynabeads™ MyOne™ SILANE	10x Genomics	PN-2000048
3' Feature Barcode Kit, 16 rxns	10x Genomics	PN-1000262
Dual Index Kit TT Set A, 96 rxns	10x Genomics	PN-1000215
Chromium Next GEM Chip G Single Cell Kit, 16 rxns	10x Genomics	PN-1000127
SYBR™ Green Master Mix	Applied Biosystems	4385612
RNeasy Mini Kit	Qiagen	74106
TaqMan reverse transcription reagents	Life Technologies	N8080234

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Plates and coating

Product name	Compagny	Catalogue number
96-well plates	Techno Plastic Products (TPP)	Z707902-108EA
70 µm cell strainer filters	Corning	CLS431751
Geltrex™ LDEV-Free Reduced Growth Factor Basement Membrane Matrix	ThermoFischer	A1413302
Insyte-W Catheter I.V. 24G 0,7x19mm	BD	381312

Software

Product name	Compagny
JMP 15	SAS
Prism 9	Dotmatics
R (v4.2.1)	R Foundation for Statistical Computing
Qupath (v0.3.2)	Open Source, University of Edinburgh
FlowJo (v10.7.1)	BD
FCS Express 6	De Novo software
7500 Fast System Sequence Detection Software (v1.4)	Applied Biosystems
SingleCell Bbrowser (v3.3.15)	Bioturing