**JOURNAL
OF HEPATOLOGY**

Journal of Hepatology

CTAT methods

Tables for a "Complete, Transparent, Accurate and Timely account" (CTAT) are now mandatory for all revised submissions. The aim is to enhance the reproducibility of methods.

- Only include the parts relevant to your study
- Refer to the CTAT in the main text as 'Supplementary CTAT Table'
- Do not add subheadings
- Add as many rows as needed to include all information
- Only include one item per row

1.1 Antibodies

Name	Citation	Supplier	Cat no.	Clone no.
anti-mouse PD-1 in vivo blocking antibody		Bioxcell	BE0273	29F.1A12
Rat IgG2a isotype control in vivo		Bioxcell	BP0089	2A3
anti-mouse CD4 in vivo depletion antibody		Bioxcell	BE0003-1	GK1.5
anti-mouse PD-L1 in vivo blocking antibody		Bioxcell	BP0101	10F.9G2
Rat IgG2b isotype control in vivo		Bioxcell	BP0090	LTF-2
anti-mouse VEGFR2 in vivo blocking antibody		Bioxcell	BP0060	DC101
Rat IgG1 isotype control in vivo		Bioxcell	BP0088	HRPN
anti-mouse CD8 in vivo depletion antibody		Bioxcell	BP0061	2.43
anti-mouse CD31 monoclonal antibody, Immune fluorescence staining		Biolegend	102516	MEC13.3
anti-mouse CD8 monoclonal antibody, Immune fluorescence staining		Biolegend	100702	53-6.7
BV605 anti-mouse CD3		Biolegend	100237	17A2
Alexa Fluor700 anti-mouse CD8a		Biolegend	100729	53-6.7
PE/Cyanine7 anti-mouse CD44		Biolegend	103029	IM7

PerCP/Cyanine5.5 anti-mouse CD62L		Biolegend	104431	MEL-14	
FITC anti-mouse PD-1		Invitrogen	11-9985-82	J43	
PE anti-mouse PD-1		Invitrogen	12-9981-82	RMP1-30	
PB anti-mouse Tim3		Biolegend	119723	RMT3-23	
Alexa Fluor700 anti-mouse CD4		Biolegend	100429	GK1.5	
Brilliant Violet421 anti-mouse CD8a		Biolegend	100737	53-6.7	
APC anti-mouse IFN-g		Biolegend	505809	XMG1.2	
PE anti-mouse TNFα		Biolegend	506306	MP6-XT22	
FITC anti-mouse Granzyme B		Biolegend	515403	GB11	
PE/Cyanine7 anti-mouse CXCR6		Biolegend	151103	SA051D1	
APC/Fire 570 anti-mouse TCRβ		Biolegend	109246	H57-597	
APC anti-mouse CD1d Tetramer		NIH Tetramer Facility	40239	N/A	
AF594 anti-mouse CD8		Biolegend	100758	53-6.7	
AF647 anti-mouse CD31		Biolegend	102516	MEC13.3	

1.2 Cell lines

Name	Citation	Supplier	Cat no.	Passage no.	Authentication test method
CT26	Cancer Res. 1980; 40, 2142-2146	ATCC	CRL-2638	Within 5 passages after thawing, tumor cells were used for in vivo assay	Authentication performed by supplier
RIL-175	J Hepatol. 2019; 70, 449-457	Scott Lowe / Lars Zender in Germany	N/A	Within 5 passages after thawing, tumor cells were used for in vivo assay	Authentification was performed by i) pathology analysis of RIL-175 tumor confirms HCC morphology and ii) by luciferase expression

1.3   Organisms

Name	Citation	Supplier	Strain	Sex	Age	Overall n number
Wild type mice		Charles River	C57BL/6	F	8-10 week old when received treatment	443
Wild type mice		Charles River	BALB/c	F	8-10 week old when received treatment	94
Albino C57BL/6		Jackson Laboratory	B6(Cg)-Tyr<c-2J>/J	F	8-10 week old when received treatment	80
B6.CXCR6-GFP knock-in	J Immunol. 2013; 190, 5226-5236	Jackson Laboratory	B6.129P2-Cxcr6tm1Litt/J	F	8-10 week old when received treatment	16

1.4   Sequence based reagents

Name	Sequence	Supplier
RNeasy Mini Kit	N/A	Miltenyi Biotec (Ref. 74104)
nCounter Metabolic Pathway Panel	N/A	Nanostring technology (Ref. XT-CSO-MMP1-12)
iScriptTM cDNA synthesis kit	N/A	BIO-RAD (Ref. 170-8891)
iQ SYBR Green Supermix	N/A	BIO-RAD (Ref. 1708882)
Fbp1	Forward 5'-GCATCGCACAGCTCTATGGT-3', Reverse 5'-ACAGGTAGCGTAGGACGACT-3'	Eurofins Genomics
Pck1	Forward 5'-AATATGACAACTGTTGGCTG-3', Reverse 5'-AATAGCTTTCTCAAAGTCCTC-3'	Eurofins Genomics
Mpc1	Forward 5'GGTACAACCTCGAAACTGG-3', Reverse: 5'-TCAAGAGCTGGTCCTTGTACC-3'	Eurofins Genomics
Adh1	Forward 5'GCTATGGCTCTGCCGTCAAAGT-3', Reverse 5'-TGTCCACAGCAATGATCCTGGC-3'	Eurofins Genomics
Aldh2	Forward 5'-GAGGACTGTGTTGGGAGGTC-3',	Eurofins Genomics

	Reverse 5' GTAGGTCCGGTCCCGTTC-3'	
Adh4	Forward 5'-GCTATGGCTCTGCCGTCAAAGT-3', Reverse 5'-TGTCCACAGCAATGATCCTGGC-3'	Eurofins Genomics
GAPDH	Forward 5'-CCT GCA CCA CCA ACT GCT TA-3', Reverse 5'-TCA TGA GCC CTT CCA CAA TG-3'	Eurofins Genomics

1.5   Biological samples
N/A

1.6   Deposited data

Name of repository	Identifier	Link
NCBI Gene Expression Omnibus database	GSE184231	https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE184231

1.7   Software

Software name	Manufacturer	Version
FlowJo	Becton Dickinson & Company	10.6.2
Prism	GraphPad Software, LLC.	8.4
Advanced Analyses software	Nanostring Technologies	2.0.115
Imaris software	Bitplane AG	9.5.1

1.8   Other (e.g. drugs, proteins, vectors etc.)

Name	Manufacturer	Purpose
Metformin 1,1-Dimethylbiguanide hydrochloride	Sigma-Aldrich (Ref. D150959-5G)	For invivo treatment
Western diet	Envigo (Ref. TD.120528)	For invivo treatment
MCD	Research diets (Ref. A02082002BR)	For invivo treatment
CDAA	Dyets inc (Ref. 518753)	For invivo treatment
Leukocyte activation cocktail (Phorbol 12-Myristate 13-Acetate [PMA], ionomycin and GolgiPlugTM [Brefeldin A])	Bioscience (Ref. 51-2042^E)	For invitro T cell treatment
2-(N-(7-Nitrobenz-2-oxa-1,3-diazol-4-yl)Amino)-2-Deoxyglucose	Invitrogen (Ref. N1395)	For Glucose uptake staining

MitoTracker Deep Red	Invitrogen (Ref. M22426)	For mitochondrial staining
MitoTracker Deep Green	Invitrogen (Ref. C2925)	For mitochondrial staining
MTT Cell Proliferation Kit	Abcam (Ref. ab211091)	For invitro experiment
DAPI	Abcam (Ref. ab138903)	For immune fluorescence staining
CellTracker Deep Red	Invitrogen (Ref. C34565 A)	For invitro experiment
CellTracker Green	Invitrogen (Ref. C2925)	For invitro experiment
Bovine PureCol	Advanced Biomatrix (Ref. 5005-100ml)	For invitro experiment
Microscopy Dish	MatTek (Ref. P35G-1.5-14.C)	For invitro experiment
Mouse CD8$^+$ AutoMACS pro sorting kit	Miltenyi Biotec (Ref. 130-104-075)	For invitro experiment

1.9   Please provide the details of the corresponding methods author for the manuscript:

Tim F. Greten, Email: tim.greten@nih.gov Tel: +1 (240) 760 6114

2.0   Please confirm for randomised controlled trials all versions of the clinical protocol are included in the submission. These will be published online as supplementary information.

N/A